

The Educational Situation in Guatemala: A Look at the Present to Map the Way Forward

Rina Rouanet de Núñez

Education Specialist (JICA GUATEMATICA Project Local Coordinator), Guatemala

Guatemala is a country located in Central America with an ancient culture. It occupies an area of 108,430 sq. km and has an annual growth rate of 2.8 percent. Life expectancy is about 70 years. As reported by the National Statistics Institute, the country has 15 million inhabitants, of whom 70% are under 30. Forty percent of the population belongs to one of the three ethnic groups: the Garifuna, Maya or Xinka that make up this multiethnic, multicultural and multilingual country. According to the Human Development Report 2011, Guatemala is a country with *medium development*, ranked 131st out of 187 countries in the world (UNDP, 2011:144 and 147). According to information obtained by the Living Conditions Survey (INE, 2011), 53.7% of the population lives in poverty (13.3% in extreme poverty and 40.4% in non-extreme poverty). Its total gross domestic product (GDP) is US\$23.3 billion and its GDP per capita is US\$4560. As far as expenditure on education is concerned, we can say that after the signing of the Peace Treaty, it has been increasing; in 2006 it reached 2.6% and almost 3% in 2011. However despite this increase, investment in education remains one of the lowest in the region. According to the Constitution of the Republic of Guatemala, it is the duty of the State to provide free and compulsory education at least at pre-school, primary, and secondary levels. According to the Human Development Index 2011 for Guatemala, average schooling has increased to 4.1 years (the average for Latin America today is 7.8 years among adults).

Based on education statistics of the year 2009 reported by the country in the compliance report of the Millennium Development Goals (2010), while at the primary level enrollment, is close to 100% , pre-school education has a net enrollment rate of 56.63% and 39.36% at secondary level. This indicates that a lot still remains to be done to expand enrollment, especially for the two levels mentioned above. The table below shows the evolution of net enrollment rate by educational level from the year 1991: (calculated in percentages):

Level	Base year 1991	1995	2000	2005	2009	Evolution1991-2009
Pre-school	16.0	20.96	37.25	46.97	57.09	40.63
Primary	71.6	72.05	85.43	93.52	98.33	26.73
Secondary	17.6	20.8	24.69	33.23	39.36	21.76

Source: Data obtained from the Ministry of Education and MDG country report

As far as the internal efficiency of the education system is concerned, we can say that 1 in 2 children do not finish primary education, 1 out of 2 children are illiterate in terms of written language on completing primary education, and out of each 5 who complete secondary education, only one passes the mathematics exam. This is a wake-up call in terms of educational quality. However, the retention rate at the primary level has improved since it increased by 33.9 percentage points. The repetition rate at the primary level, although declined from 14.90% to 11.49% in the period 1991-2009, is still considerable. If we analyze this index by grade, it is noteworthy that it is higher in the first grade of each level. In the case of primary school in 2009, it was recorded that about a quarter (23.90%) of the children enrolled in first grade were repeaters, which means that for every 100 enrolled, 24 are repeaters. The table below summarizes the internal efficiency indicators:

Indicator	Pre-primary	Primary	Secondary
Rate of retention	92.18%	94.49%	91.78%
Rate of dropout	7.82%	5.51%	8.22%
Rate of repetition	0	11.49%	3.06%
Rate of promotion	100%	86.40%	68.37%

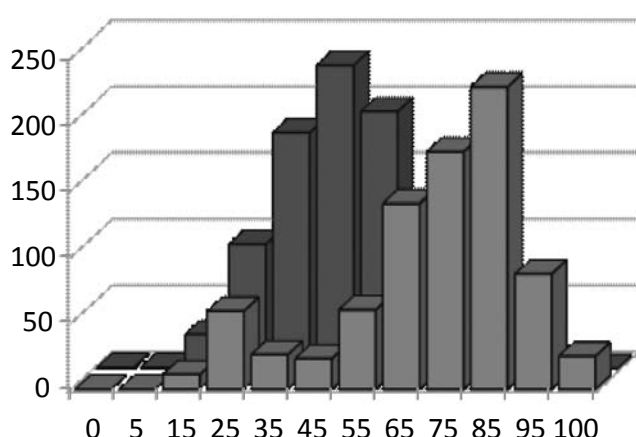
Source: Data obtained from Ministry of Education

Despite having achieved some improvements, results such as those obtained by the Second Regional Comparative and Explanatory Study of Educational Quality in Latin America (SERCE), still reflect major challenges in improving the quality of education in Guatemala. The results obtained show that Guatemala's performance is lower than the regional average within one standard deviation. For math, the only nation it outperformed was the Dominican Republic, and for Spanish language it was above the Dominican Republic and Panama. Some of the factors associated with the performance report highlighted by the Latin American Laboratory for Assessment of the Quality of Education (LLECE), are consistent with what is suggested by other studies in Guatemala regarding factors associated with academic performance: the socio-economic and cultural, urban-rural status and the use of mother tongue as part of the school environment. Special attention should be paid to training and teaching skills. In a recent study by the Ministry of Education sponsored by the CEC-SICA (FES project / Education 2011-2013), "Factors which affect the performance of children from the first cycle of primary level education in mathematics in public schools in Guatemala", it was found that the performance of primary level students in mathematics is linked with: teaching experience, education level (better preparation through more years of study and/or training, positively influences the performance of students), the teacher's mastery of the subject and his/her experience in handling materials. Expectations regarding student performance are also associated with increased student academic achievement.

The results obtained by SERCE as in other studies, are an important guide for the Ministry of Education regarding the actions that need to be taken in the following years to improve the quality of education, starting with improving the training of teachers. In Guatemala pre-school and primary teachers are trained at different levels ('Normal' Schools, i.e. teacher training colleges), which means training is not at university level. In this respect, specific remedial actions have already been implemented, as in the case of the Academic Program for Teacher Professionalization PADED-D-, organized by the University of San Carlos de Guatemala. The program is voluntary and a just over 12,000 teachers have participated, successfully completed the program and graduated from the state university. More cohorts of teachers are expected to be trained and it is the children who will benefit directly. With these actions, an effective response will be given to the demands and the policies, objectives and strategies formulated by the National Council of Education, which establish the need to professionalize teachers up to higher levels and raise the initial teacher's training program to the university level so that they can teach appropriately. It is worth mentioning that JICA, through the Project for Improvement of Teaching Mathematics GUATEMÁTICA Phase II, has supported mathematics courses taught in the PADED-D, applying the methodology proposed by the Project. The effectiveness of the program has been evaluated by more than one institution including the Ministry of Education. The study by the Project GUATEMÁTICA Phase II during its implementation in the areas of influence showed that the students' performance in mathematics at the primary level of professionalized teachers significantly influences the performance of the students. The results also reflect the improvement of teachers in teaching math classes (mastery and appropriate methodology).

To identify the improvement in the mastery of mathematical content by participating teachers, a comparison of pre- and post-test results in PADED-D math courses, was conducted in two cohorts. Below is an example of the results of the course "Mathematics and Learning" with the second cohort, conducted in the period from 18 February to 14 April 2012.

Results of the 2nd Cohort Pre and Post Test: Teachers (Mathematics and how it is learned)



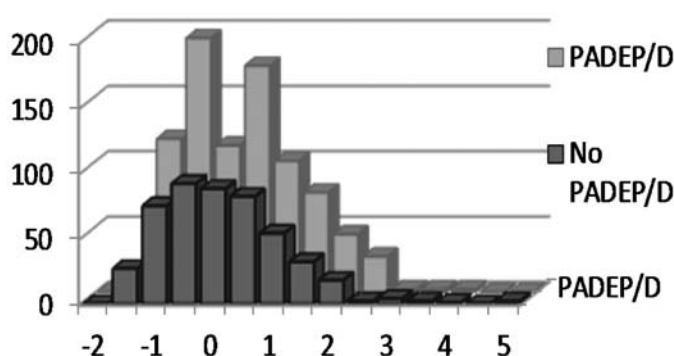
	Pretest	Posttest
Pretest N	838	838
Average	40.0	66.1
Posttest DE	13.6	20.6
gl	837	
p	< 0.01	

N=838
gl=837
P<0.01

Source: Final Report Project GUATEMÁTICA Phase II, 2012

The graph is striking as there is an improvement in the mastery of content by teachers after participating in the course. Further observations were made of the pilot group and the control group and a significant difference was found in classroom management (including methodological mastery, time management and classroom activities that require greater involvement of students). The results of the observations benefited the teachers attending the PADEP-D, since they demonstrate better classroom management than those who do not attend PADEP-D. Meanwhile, the performance of students whose teachers participated in the Professionalization Program was evaluated, with the following results:

Results of the evaluation of students 2012 (Global)



	PD	NPD
Average	0.06	-0.11
Standard Deviation	0.99	1.01
Observations	864	479
Mean Difference	0.17	
Degree of Freedom	1341	
t	1.96	
p	<0.01	

Source: Final Report of Project GUATEMÁTICA Phase II, 2012

This information not only demonstrated the achievement of project objectives, but was a useful input to the Ministry of Education, as evidenced that the PADEP-D can make improvements in the preparation of teachers, so it is worthwhile to continue encouraging it.

Another action that deserves to be mentioned is the transformation of initial training, which is expected to come into effect in 2013 by Government Agreement, in such a manner that the training of the primary teachers would be at university level. It is expected that the initiative which has required several years of discussion to reach a consensus on, will result in an improvement of the teachers who will graduate in the coming years.

At the secondary level we can say that enrollment has doubled in the past decade, but is still low compared regionally: gross enrollment is 66.65% and net enrollment is 40.25 %. At secondary level, the enrollment distribution pattern is different from the primary level: participation is low in the public sector in secondary education, with most students enrolled in private schools, which undoubtedly has a negative impact on poorer families. It is also interesting to

note the participation of the cooperative sector (in which the municipalities, parents and the Ministry of Education are involved). This method reports an enrollment ratio similar to the public sector. To expand secondary education services in rural areas, the Ministry of Education adopted some unconventional models, as the case of the television program and secondary education distance learning, which began in 1998, following the cooperation agreement between Mexico and Central America in the field of distance education classes with pre-recorded videos on television and with the help of a facilitator. In 2003, 429 distance-secondary institutions were participating, with a total of 26,000 students which reached 21% of youth served by the public sector. Other secondary forms of enrollment are NUFED (Family Educational Nuclei for Development) which is an ancillary system of education for students that do not attend schools. This program aims to provide young men and women in rural areas, primary school leavers, a general education based on their needs, problems and concerns. This training is equivalent to three years of lower secondary, based on self-management. The program uses the methodology of alternation and in some cases children are inmates at the center. This scheme covers 21 prefectures. Currently there are 5,433 women and 4,076 men serving, with a total of 9,509 in three grades.

The foregoing reflects the interest that has been taken in expanding enrollment, however if we work only on improving the coverage of education at the secondary level, but not on overcoming deficiencies in the quality of education received by students, it will advance very little. According to a performance test conducted by the Ministry of Education for the first grade of secondary education, in which the three types are compared (actually, four are compared, but two of them are of academic school education while the other two are of non-conventional methods, as described above), it was found that there were no significant differences in communication, language and mathematics, in terms of the results obtained by students (in terms of percentage of correct answers), but there was a better performance in the area of communication and language than in mathematics in all of the types. An important finding is that in mathematics, students in regular official establishments have better score than those of the other types.

Type of Education	Communication and Language	Mathematics
Regular (official)	24.72%	22.02%
Secondary by distance learning	24.24%	21.83%
NUFED	24.08%	20.08%
Cooperative	23.80%	18.23%

Source: Based on information from the Ministry of Education, DIGEDUCA, 2009

Meanwhile, national tests conducted by the MOE (2009) for students in 3rd year secondary education, show that fewer than 8% of the students obtained passing grades in the basic skills of reading, and 98% of students did not obtain the pass mark in Mathematics. According to the report of the Education General Director Investigation and Standard (DIGEDUCA), in terms of Reading Skills students have problems in demonstrating mastery of basic skills such as summarizing, understanding and analyzing texts. Mathematics: Students have difficulty in solving problems even when given clear and comprehensive information on the application of formulae and theorems.

Educational quality problems at this level suggest common factors at primary level, as is the case of the training of teachers who work at this level, although currently to be selected one must have a degree as a school teacher at the university level (though not necessarily at the undergraduate level), there are still teachers working at the secondary level who have entered the system before this selection criterion was introduced and do not have a college education.

Considering that "the quality of an education system's ceiling is the quality of its teachers" it must be of vital importance to prioritize teacher training as the first step to improve the quality of education. While training and equipping the teacher are important elements to raise the quality of teachers, there are other factors such as adequate compensation, proper selection and quality in the technical education of basic cycle in its various forms.

According to the strategy of transforming the middle school level (lower and upper secondary education), the Ministry of Education launched in 2007, a new national curriculum for this level and it has been redefined for the following purposes:

- To provide continuity from the second cycle of the primary school level.
- To maintain and continue the concept, focus and methodology that has been adopted for the primary level: student centered and well-organized curriculum.
- To provide specialization and strengthen specifically a level which should look for the refinement of cognitive strategies and the proper handling of the information related to various fields of human knowledge and creation.
- To strengthen a foundation for further studies of the diversified cycle.

The basic cycle is expected to provide opportunities so that the students can explore their subject preferences and talents, combine their skills and develop abilities; strengthen their physical performance, show their artistic and expressive inclination; increase their thinking and critical position in their real world surroundings and head towards the discovery of their personal and professional vocation. This linkage between levels is undoubtedly one of the biggest challenges; if achieved it will surely improve the performance of students considerably.

The National Education Council (consultative group of civil society organizations involved in the education sector) has produced educational policies that should be promoted in the coming years. For this, the Ministry of Education, through the Government Plan described in the Agenda for Change 2012-2016, includes five strategies that seek, among other things, coverage, to improve the quality of education. In this context, the strategic priority is "strengthening the capacity of teachers" which includes: renew initial teacher training, ensure professionalism and in-service teacher professional development and support teachers in the implementation of the National Curriculum.

In 2012, the Ministry of Education launched "a strategy for quality education" in which it talks about transformation of initial teacher training. This strategy emphasizes that the normal schools and private institutions no longer offer elementary teaching programs starting next school year (2013) onwards, those who aspire to work in primary schools in the country must complete a diversified two year course (Bachelor of Science and Arts) and later, at university level, be trained as primary school teachers, in one of the stipulated specialties.

The Ministry of Education will seek to establish a system of incentives, according to the provisions in "teachers' career in Guatemala", which will recognize teachers' prior studies, so that teachers' education at the university level is valued properly.

Secondary teacher training could be the next step toward improving the quality of education.

Bibliography:

1. Ministerio de Educación: Estrategia para una Educación de Calidad, septiembre 2012.
2. Ministerio de Educación, DIGEDUCA, Indicadores Educativos, 2009
3. Banco Mundial: Datos Mundiales de Educación, 2010
4. Proyecto GUATEMÁTICA, II Fase, Informe Final, octubre 2012
5. UNESCO-LLECE; Informe Ejecutivo, Segundo Estudio Regional Comparativo Evaluación SERCE, 2008
6. Secretaría de Planificación y Programación de la Presidencia; Tercer Informe de Avance del Cumplimiento de Objetivos del Milenio, 2010
7. PNUD; Informe de Desarrollo Humano, 2011
8. INE-Encuesta Nacional de Condiciones de Vida en Guatemala ENCOVI, 2011
9. Ministerio de Educación de Guatemala, Informe de Factores que inciden en el rendimiento en matemática de niñas y niños del primer ciclo del nivel de educación primaria en escuelas públicas de Guatemala. PROYECTO: FES/

Rina Rouanet de Núñez, Education Specialist (JICA GUATEMATICA Project Local Coordinator), Guatemala

She is currently an Education Specialist who began her career as a primary education teacher, and later held various important positions at Ministry of Education, such as Training Coordinator, Departmental Education Director. She has collaborated with donors including ACDI, UNDP, JICA, USAID, Red Cross, carrying out multiple consultancies, besides has designed and coordinated national impact projects. She has been invited to speak at numerous national and international conferences. Her experience goes from research, curriculum design, methodological innovations implementation, and material design for formal and non-formal education. She has been honorary member of several education commissions for instance Consulting Group of Human Development Report, and has worked as advisor of Deputy Ministry of Education. She was representative of Ministry of Education at Regional and Departmental Development Council; in addition, was Education Interagency Network Coordinator and cofounder. Ms. Rouanet holds a Bachelor's degree in Pedagogy & Educational Sciences and a Master's degree in Education Administration. She has studied Demography, Environment Sciences, Prevention & Risk Management, and Gender.