TIMSS 2007 results for the Basque Country PRELIMINARY

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TIMSS 2007 results for the Basque Country

The Trends in International Mathematics and Science Study, TIMSS is one of the evaluations carried out by the International Association for the Evaluation of Educational Achievement.

TIMSS data have been collected every 4 years since 1995, and the number of countries participating has increased since the first collection: in 1995 evaluation data was collected from 45 countries, in 2003 there were 51 participants and in the most recent study, TIMSS 2007, 67 countries took part.

TIMSS provides results on pupil performance in two areas of knowledge: Mathematics and Science, by means of a test administered to pupils in all the participating countries.

TIMSS assesses two different ages of school children: grade 4 pupils, equivalent to the 4th year of Primary Education and grade 8 pupils, equivalent to the 2nd year of Obligatory Secondary Education (OSE). Only grade 8 pupils were assessed in the Basque Country.

The Basque Government's Department of Education, Universities and Research is aiming to collect own data on Basque pupils' performance in grade 4 Mathematics and Science.

The Basque Country took part in TIMSS 1995 (grade 4) as part of the Spanish state sample and therefore no own data is available for that year. Neither the Basque Country nor the Spanish state participated in TIMSS 1999. In TIMSS 2003 the Basque Government's Department of Education, Universities and Research decided to assess grade 8 pupils (2nd year OSE). The Basque Country also participated in TIMSS 2007 with its own sample of grade 8 pupils for the second consecutive time and so comparison with the earlier results is now possible.

Characteristics of the evaluation

The TIMSS is a curriculum evaluation as the entire test content is based on the Mathematics and Science curricula in the participating countries and is selected by a group of international experts. The selection is made taking into account the following criteria:

- Test content is included in a significant number of countries.
- Tests are coherent with earlier tests.
- The tests advance content planned for mathematics and science education in the future.





Test characteristics must adapt to the characteristics of the students being evaluated.

In addition to the data supplied by the test, TIMSS gathers information from questionnaires administered to students, Mathematics and Science teachers and heads of schools.

Two question formats are used in the TIMSS assessment: multiple choice and constructed response. Multiple choice questions involve choosing the correct response from among possible options, while constructed response items require a written response.

Sample data

Sample size was defined by the IEA which chose both the schools and the specific classrooms where the test would be administered. The extracted sample, that is the number of schools and pupils for evaluation, is shown in the following tables:

	TIMSS 2007 SCHOOLS Models			
Schools	A	В	D	Total
State	20	20	30	70
State	20	20	20	60
subsidised	40	40	50	130

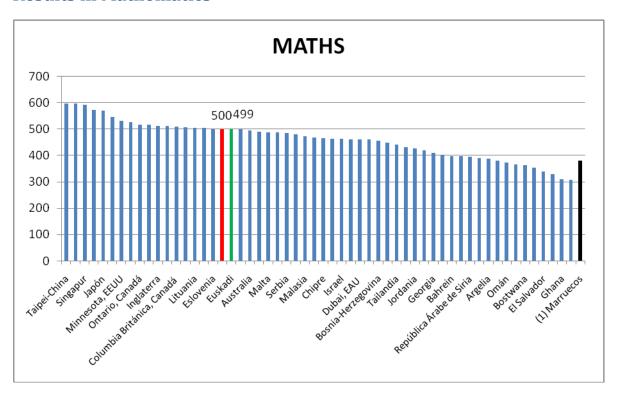
TIMSS 2007 PUPILS

Pupils*	A	В	D	Total
State	128 (5.56%)	125 (5.46%)	685 (29.85%)	938 (40.87%)
State				1358 (59.14%)
subsidised	421 (18.35%)	432 (18.8%)	505 (21.99%)	
Total	549 (23.91%)	557 (24.26%)	1190 (51.84%)	2296 (100%)

^{*}Pupils weighted according to representativity in the sample



Results in Mathematics



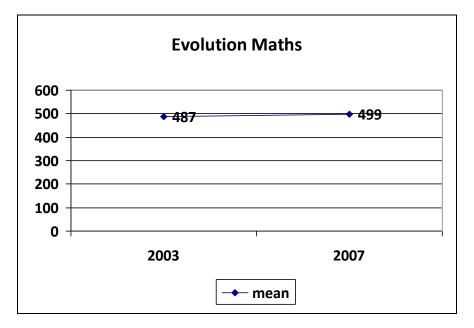
The average score for Basque Country pupils in Mathematics is **499 points**. The TIMSS scale average is 500 points. **The Basque Country score is not statistically, significantly lower than the scale average.**

5 countries show scores similar to the scale average: The Basque Country, the Czech Republic, Slovenia, Armenia and Australia.

Basque pupils mainly reach the intermediate benchmark.

Comparison of performance in Mathematics. TIMSS 2003-2007



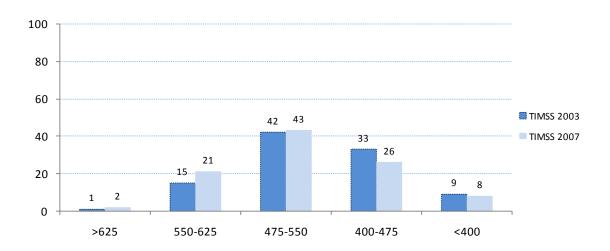


In the Basque Country the average score in Mathematics shows a 12 point increase, the third highest improvement after England and Chinese Taipei.

PERCENTAGE OF PUPILS AT THE BENCHMARKS: MATHEMATICS

As the comparative graph for the Basque country shows, the proportions below and at the low benchmark have decreased by 1% and 7% whereas the proportions reaching the intermediate, high and advanced benchmarks have increased by 1%, 6% and 1% respectively.

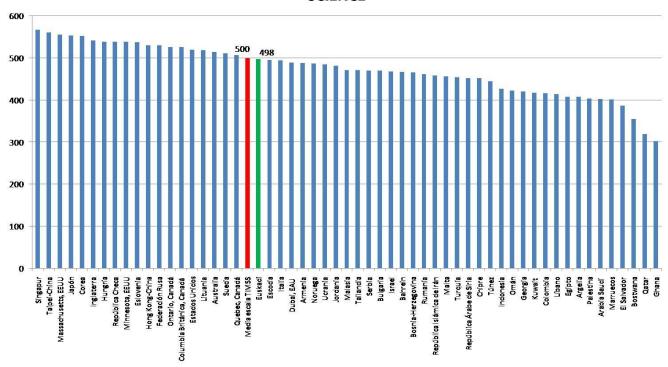
Percentage of pupils at the benchmarks in mathematics





Results in Science





With 498 points, the Basque Country has attained the TIMSS scale average with similar scores to Scotland and Italy.

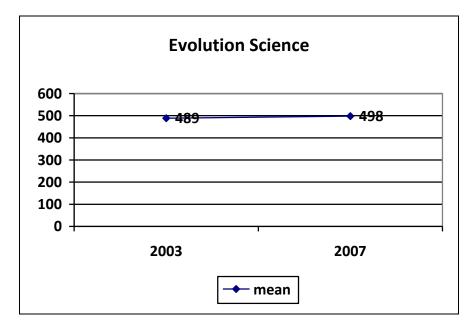
The Basque Country's score is not statistically, significantly lower than the scale average.

According to the overall result for performance levels, a high percentage of pupils in the Basque educational system have attained the intermediate and low benchmark (67%) with very few reaching the high benchmark (3%) or below the low benchmark (9%).

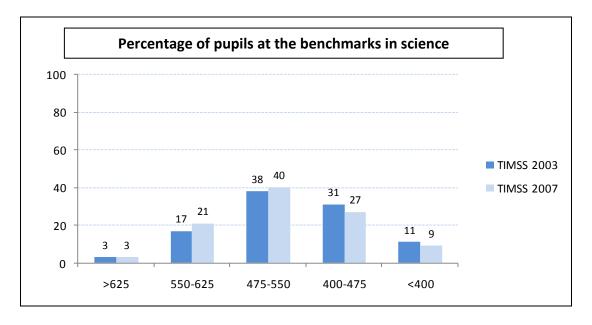
Comparison of performance in Science. TIMSS 2003-2007

The scores from both evaluations show improved performance in the Basque Country scores with a significant 9 point increase.





Percentage of pupils at the benchmarks: Science

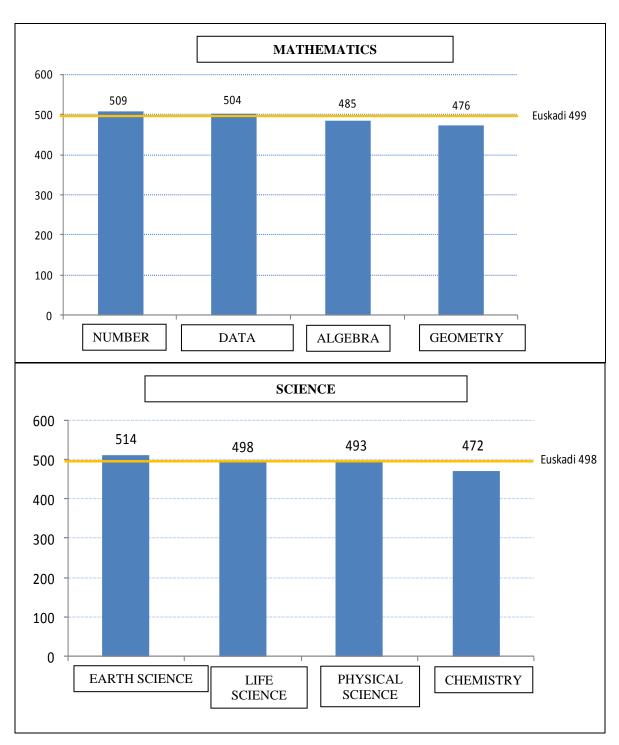


As the graph shows, performance in the Basque Country has evolved as follows: levels below and at the low benchmark have fallen by 2% and 4% respectively and there has been an increase at the intermediate and high benchmarks with no change in the percentage attaining the advanced benchmark (3%).





RESULTS BY AREA



The weakest areas are Geometry and Chemistry.

Report: <u>www.isei-ivei.net</u>