

SINGLE-SEX EDUCATION: THE CASE OF SANTA LIBRADA SCHOOL

AN EXPERIENCE THAT MERITS REFLECTION

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INTRODUCTION

This information seeks to present outcomes in regard to the organization of the school, which uses a single-sex model, the first to have been developed in a public school in the Republic of Colombia. . The experience merits reflection and study, given the little knowledge available on the subject and its importance for improving the quality of education. The information presented herein is of a preliminary nature, including some basic statistics, and is the first phase of a much more complete text that will detail the entire experience, based on documented records and that will be published in June of next year in order to present in a broad sense another option for education in Colombia.

BEGINNINGS OF THE EXPERIENCE

The Right to Equality

“The determination of unacceptable motives for discrimination is not categorical; and therefore judicial reasoning itself may serve to exclude gender as a factor that can determine as a sole cause. the absolute and anticipatory exclusion of opportunities of a person’s educational training. This, undoubtedly, should be understood in reasonable terms in order to not fall into the excess of condemning the creation of learning establishments specifically conceived for the training of males or females. This is not a case of ruling that all schools must necessarily be coeducational; but rather to guarantee that the fact of being of one gender or the other is not an insuperable barrier for a person to obtain an education”.

Decision T-624/95, December 15, 1995
Constitutional Court of Colombia

When in 1983 I worked at the Regional Department of Education, I became interested in the outcomes of government examinations that the Institute for Support of Higher Education -- ICFES -- currently called the Colombian Institute for Education Assessment, carried out for final year students in all high schools of the country as a requisite for college entrance and as an imprecise parameter -- as it continues to be -- for gauging in some way the state of education in each school and change in the same through time, given the lack of criteria to determine factors associated with the quality of education. A review was carried out of the results for a ten-year period in all schools within the region, and especially in public schools. Some variables stood out and led us to observe with prudence but with concern a phenomenon that resisted being resolved. This, in spite of work carried out abroad in this regard and that could be used to understand more completely the outcomes produced in our system of education.

The first observations of these outcomes led to the formulation of simple hypotheses that, although they had never been investigated with rigor, continued to be current and took on new importance with the creation of the Latin America and Caribbean Laboratory for the Assessment of Education, of which Colombia is a part. The number of international tests have since multiplied, and the world has pronounced itself in favor of **single-sex education** as a necessity in order to improve the quality of education and to decrease in-school violence..

A major hypothesis, among a number that have been formulated through observations carried out and which I again took up recently in order to demonstrate its validity, is the following:

“Public schools with students of a single sex in the Department of Valle del Cauca, obtained better outcomes in tests of the National Testing Service of ICFES than did coeducational schools”.

The observation centered on public and private schools that serve only students of the same sex, noting that these institutions alternated year after year in occupying the top places in the school performance tables of the ICFES. The observation, always present in my administrative teaching function as director of coeducational and single-sex schools, among them the Departmental School for Girls and the Santa Liberada School, allowed me to observe teachers, students, and above all, academic outcomes, without observing great differences that could explain during the periods considered this reality of being institutions that received students of a single sex, with the same limitations of other public schools – the same curriculum and teachers with the same training and within the same national categories. Was it, then, the condition of being schools that received students of a single sex that was determinant for their being in the top positions in tests, as a factor associated with the quality of education? This is a question which I will here begin to answer.

Earlier facts, with international references back to the 1990s, began to evoke a series of questions resulting in the situation

today when we know that improvements in the quality of education, when viewed from the perspective of a well-managed system of single-sex education doubtlessly means that the good results of the schools during those times were linked to what international results had been showing. In the past, people would say, “*a word to the wise is sufficient*”. The facts and statistics yielded no other explanation.

The outcomes obtained by students in diverse international tests in our countries have been the focus of extensive analysis, especially in terms of the value given to **single-sex education**, given the outcomes achieved by coeducational schools. Colombia is very far from imposing coeducation in all public or private schools. The initial challenge is to resist the imposition of coeducation. This is a discussion that should be subject to rigorous research and to the opinion of our country in order to achieve a new kind of school organization; an **organizational revolution based on scientific standards**.

Since its founding by General Francisco de Paula Santander on January 29, 1823, until 1999 the **Santa Librada School** had only received male students who have gone on to occupy distinguished places in the academic area, recognized by the government itself and by public universities. Today, the school is coeducational by law, and has been obliged to be so since 1999, when it received female students for the first time in its history. The first year witnessed serious problems of academic quality and of behavior of its students. After a detailed analysis with the faculty, the school was reorganized in order to include classes of students by gender, keeping some groups coeducational in order to maintain rigorous observation. Today, the school has concrete outcomes that one must present to the teaching community in general in order to open up a national discussion. This will make it possible to deepen observations and to project research that can demonstrate the need to return to single-sex education, as is being done in the modern world.

The experience of single-sex classes in coeducational institution is promising when we consider the initial results. Undoubtedly, one must take care not to introduce differentiated pedagogical treatments for boys and girls. The same teachers work in the same classes and use the same assessments, just as is done by in the ICFE and in international tests; but with results that are of great interest when viewed using other criteria.

This is the sense of this presentation: to bring us closer to modern-world trends in order to validate them scientifically and permit us, in Colombia, to move toward a new kind of school organization and to achieve true quality education that responds to the demands of contemporary society. We intend to offer secure paths by means of an educational experience that has begun to change from one school organization to another that offers more advantages in terms of the quality and integral training of students. Consequently, one cannot look upon this information as if it were a part of rigorous research, nor even as a treatise on single-sex education, given that it is the result of an experience that is in its beginnings, for reflection, and is starting to produce observable and measurable results.

With studies on this form of school organization and pedagogical strategies for approaching it having begun, the work becomes important, given that our teachers, who are hard-working and ingenious can provide, through their experience, many contributions for the development of a single-sex education model for boys and for girls.

CHARACTERISTICS OF THE SCHOOL

We will look at the most relevant statistics for description of the institution and of its results in in-school tests in two academic areas: humanities (literature) and mathematics, compared with the results of external ICFES tests over the last two years: 2011 and 2012. It should be noted that Secondary and

Middle School Education model in Colombia covers six (6) years , and for this reason we take as a reference groups that entered the 6th grade in 2007 and 2008 and who finished secondary school in 2012-2013. This means that, from the beginning, the students were organized in separate groups of boys and girls, moving progressively through secondary instruction with the outcomes indicated, and admitting new students in each period for the different groups with the above-mentioned organization.

Santa Librada School is located in District 3 of the Santiago de Cali Municipality (see table No.10), in the Department of Valle del Cauca, in the Republic of Colombia, in the old San Bosco neighborhood, which is part of the historical center of the city. Consequently, it is an urban institution that receives students of different levels from all parts of the city.

TABLE Nº 01
GEOGRAPHICAL LOCATION OF THE SCHOOL WITHIN THE MUNICIPALITY

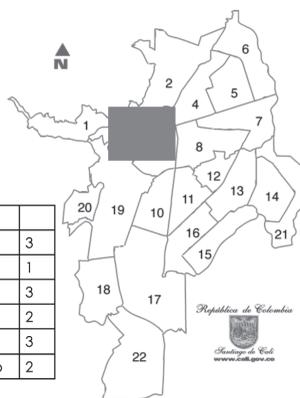
CONTEXTUAL TABLE

Santiago de Cali → 22 comunas

I.E. Santa Librada → **Comuna 3**

District 3 has 16 neighborhoods located and stratified in this manner:

BARRIO	ESTRATO		
Nacional	3	San Nicolás	
El peñón	5	San Pedro	3
San Antonio	3	Santa Rosa	1
Los Libertadores	3	El Hoyo	3
San Juan Bosco	3	El Piloto	2
La Merced	3	Navarro la chanca	3
San Pascual	1	Acueducto San Antonio	2



Due to its location, the school receives student from all districts (see table N° 02) and from all social strata (see table N°

03), positing that the population from stratum 0 has the lowest economic resources, and that of stratum 6 has the greatest. Thus, 89,86% of students are from families with low economic resources, with limitations and dysfunctions of various kinds.

TABLE N° 02
DISTRIBUTION OF THE STUDENT POPULATION IN PRIMARY/ AND SECONDARY

DISTRICT	PERCENTAGE
3	27.04%
9	12%
1	27.04%
19	8%
Others	25.92%

TABLE N° 03
DISTRIBUTION OF THE STUDENT POPULATION BY ECONOMIC STRATUM

STRATUM	PERCENTAGE
0	19.9%
1	10.14%
2	17.34%
3	42.48%
4	3.15%
5	2.60%
6	1.0%
No information	3.39%

The levels of school drop-out and grade failure favor girls more than boys, according to the final outcomes of the years analyzed (see Table N° 04). There is a marked tendency for the increase of presence of female compared to male students, who were predominant in the school.

TABLE Nº 04
INITIAL ENROLLMENT, SCHOOL DROP-OUT, GRADE FAILURE AND FINAL
ENROLLMENT, BY GENDER
 2011 and 2012

Variable	Years	Initial Enrollment	Desertion		School drop-out		Grade failure		Final enrollment	Final percentage
			No.	%	No.	%	No.	%		
Gender										
Females		690	39	5.6	27	3.9	64	9.2	624	90.43%
Males	2011	722	78	10.8	59	8.1	109	15.0	585	81.02%
Total		1412	117	8.28	86	6.0	173	12.2	1209	85.62
Females		661	41	3.1	44	3.4	46	8.0	576	87.1
Males	2012	645	59	4.5	69	5.8	73	14.1	517	80.2
Total		1306	100	7.6	113	8.7	119	22.1	1093	83.7

The average final grade of all students classified into single-sex groups is higher than that for coeducational group, demonstrating the efficiency of the organization, even without planning directed at single-sex education (See table Nº 05)

TABLE Nº 05
AVERAGE TOTAL OF ALL CLASSIFICATIONS OF ALL GROUPS
 Years 2011 and 2012

CLASS GROUPS BY GENDER	2011	2012
Female	3.68	3.55
Male	3.29	3.71
Coeducational	3.07	3.48
Total School	3.34	3.58

Every year, what is today the Institute for Education Assessment - ICFES – applies a test to students in the final grade of secondary education, that serves as an admission test to higher education, and at the same time as an assessment of individual schools. The cost of enrolling in the test is assumed by the

students, with an average of 86% of students from the school taking the test. The ICFES classifies schools on a scale from Extremely Low, Very Low, Low, Medium, High, Very High, and Extremely High. The school has improved its results for the last two years, having, among other factors, as one may determine, a single-sex organization of its classes.

(See Table N° 06)

TABLE N° 06
RESULTS OF ICFES TESTS FOR THE LAST SEVEN YEARS

YEAR	AVERAGE LEVEL OF STUDENTS
2007	HIGH
2008	HIGH
2009	HIGH
2010	HIGH
2011	SUPERIOR
2012	SUPERIOR

In spite of having the outcomes of two of the basic exams given at the school as part of the ICFES battery, the analysis of these data is a complex one, considering the difficulty of having outcomes on different non-confirmed scales. In any case, it is pertinent and useful to pay attention to each of the outcomes in order to make particular comparisons in outcomes between groups by gender and by area in order to arrive at meaningful conclusions in the analysis proposed and comparisons with international tests if one takes into consideration that they have produced very marked trends in terms of Literature and Language as an area of best outcomes for girls and of mathematics for boys.

TABLE Nº 07
COMPARISON OF SCHOOL OUTCOMES AND ACHIEVEMENT TESTS IN LITERATURE
AND MATHEMATICS
 School year 2011

GRADES	GENDER	Final mean, Literature School	Average obtained, tests in Spanish II	Final average Mathematics School	Average obtained test in mathematics II
11.1	Female	3.69	53.75	3.49	53.58
11.3	Female	3.78	47.96	3.42	45,06
11.5	Female	3.42	44,28	3.15	43,76
female average		3.63	48.66	3.35	47.46
11.2	Male	3.53	50.07	3.32	53.79
11.4	Male	3.32	46.78	3.09	46.91
11.6	Male	3.41	46,38	3.13	48,75
male average		3.42	47.74	3.18	49.81
11.7	coeduca- tional	3.52	47,34	2.97	47,39

TABLE Nº 8
COMPARISON OF SCHOOL OUTCOMES AND ACHIEVEMENT TESTS IN LITERATURE
AND MATHEMATICS
 School year 2012

GRADES	GENDER	Final average, Literature School	Average obtained in test in Spanish II	Final average Mathematics School	Average obtained test in mathematics II
11.1	Female	3.64	49.6	3.17	48.0
11.2	Female	3.70	48.2	3.15	44.9
11.4	Female	3.50	42.9	3.13	39.6
female average		3.61	46.9	3.15	44.1
11.3	Male	3.50	44.3	3.50	32.1
11.5	Male	3.22	43.5	3.22	30.5
male average		3.36	43.9	3.36	31.3

Grades, Final average, Literature School, Average obtained in test in Spanish II, Final average, School, Average obtained for test in Mathematics II, Female average, Male average

For the year 2011, the trend was marked, with girls obtaining better grades than boys in literature and Spanish in the school in ICFES tests. For their part, the boys achieved better outcomes than the girls in mathematics. Similarly, with the exception of average outcomes in mathematics corresponding to boys who were in coeducational classes, those in these classes are below the classes divided by gender, thus confirming that one can achieve better outcomes with well-programmed single-sex education. For the year 2012 the trends are almost the same – varying only in the better performance of girls in mathematics, as can be seen in tables 07 and 08.

Finally, in regard to disciplinary behavior, according to statistics classified by class, one notes that the female classes have the least number of notations in regard to acts of indiscipline and conflicts, followed by the all-male classes, and in last place the coeducational classes, with a very high number of conflicts of a quite serious nature. One also notes the larger number of conflicts in the lower grades, and the single-sex grade 11, without a single conflict reported during the school year. For the coming year other important tasks are projected in order to solidify single-sex education through carrying out more detailed observations in all areas, including research on teachers, parents, students, and graduates in order to collect points of view for the strengthening of single-sex education.

CONCLUSIONS

1. Public schools cannot remain outside the range of possibilities that single-sex education offers. The observations made are very relevant, and work must continue with greater effort in order to achieve in schools the strengthening of

the single-sex model that may serve as a reference for other schools of the country for improvement of the quality of the education and lives of students.

2. Improvements should be made in recording all situations occurring day-to-day in school in order to strengthen and improve the experience of single-sex education.
3. The benefits of single-sex education should be disseminated and the outcomes obtained by the school published, opening up forums and colloquia directed at teachers and schools in the city and the country, noting the legal possibility of fostering and strengthening single-sex education, given that the Constitutional Court of Colombia has ruled favorably, and that international experiences confirm that the model aids in the improvement of the quality of education and in the integral education of students.
4. It is necessary to obtain more bibliographic information and to be informed about other experiences in single-sex education in order to strengthen the task of better informing teachers, students, and parents.