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EDUCATION IN CHILE: LOOKING FOR A BETTER INSTITUTIONAL DESIGN

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1. PRELIMINARY CONSIDERATIONS

As Hayek has sustained, social phenomena are extremely complex. This complexity should make us cautious in most public policy objectives. However, in most cases the contrary occurs, especially in those areas in which empirical research and, therefore, an understanding of social phenomena, are severely limited. Ignorance seems at times to create an attitude of illuminism, instead of prudence. Therefore, certain policies are followed with exaggerated conviction although they have not been appropriately tested, or they require an institutional framework that is not in place when they are implemented.

This approach is quite frequent in education. Although there is good research in this case[1], overall, the research that has been done lacks enough strength to influence educational policy. Mainly because some studies contradict each other, or the quality of the data prevents any strong conclusions from being reached. Hence, there is no consolidation of widely shared empirical regularities like what occurs in other fields of social research or, even more frequently, in the field of natural sciences.

Such scenario leaves in my opinion little room for centralized policies. If they are wrongly designed the costs for the whole educational system may be enormous. The decisions should be left to elementary and high schools or, in general, to local communities. Most of the knowledge required to generate an effective education is local in its origin. The evaluation of teachers is such a case.[2] However, Chile recently took teacher evaluation outside the school's scope in what constitutes a clear example of the incorrect approach underlying the Chilean educational policy.

In what follows I will suggest a very basic approach to Chilean educational policy that is usually forgotten: those ultimately responsible for improving the learning of students are the schools. Accordingly, schools must be held accountable for their results. For this to happen, an institutional framework that generates that accountability is required. The creation of such a framework is the main challenge for Chilean educational policy.

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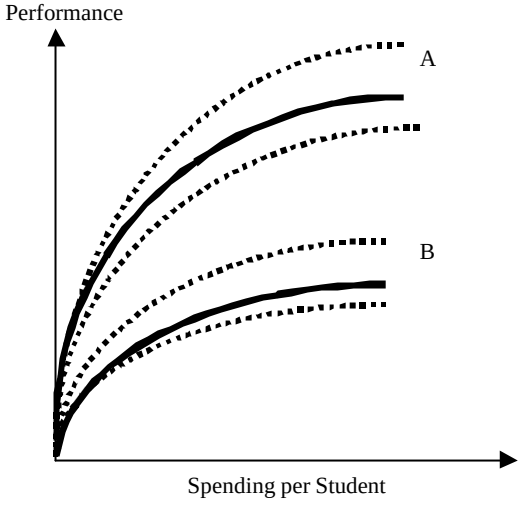
1 See, for example, the papers included in "La Economia de la Educación y el Sistema Educativo Chileno," *Cuadernos de Economía*, December 2002, Volume 39, No.118, edited by Claudio Sapelli.

2 See, for example, Heckman and Carneiro (2003).

2. A Debate on the Quality of Education

Chile has increased significantly its spending on education, going from 2.5% of GDP in 1990 to an estimated 4.4% this year. Figure 1 shows a possible relationship between spending and the quality of education. It suggests that the relationship between spending per student and academic performance is not unique. That figure presents two curves that relate spending to the quality of education. The curve marked A shows a high expected performance for each level of spending per student. The dotted curves represent the confidence intervals of that technology, leaving room for countries of similar educational technology to report differences in academic performance even though their levels of spending are very similar. Curve B, on the other hand, reflects a very low academic performance for each level of spending per student. There are huge differences in academic performance between both technologies for similar expenditures.[3]

FIGURE 1
ACADEMIC PERFORMANCE AND SPENDING PER STUDENT



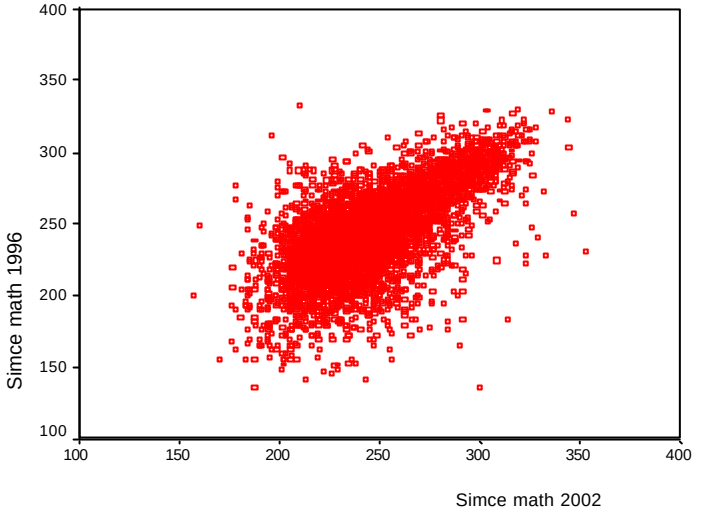
The adoption of an "educational technology" such as the one described by curve B is particularly regrettable for a country. However significant the increases in spending may be, the effect on the academic performance of students is marginal. In this case, a change from technology B to technology A is more

[3] Please note that we have made an abstraction of what we understand to be academic performance. Undoubtedly, we are viewing the quality of education in a broad sense. This analytical framework applies to any definition that one wants to give to the quality of education.

advantageous –rather than an increase in spending– because it raises the academic performance of students more. Evidence has been gathered that our academic performance lags behind tremendously[4]. If Chile is on a technology such as B, this would explain why the results of the national evaluation tests (the Simce) have not undergone significant changes despite the heavy increases in funding.

Of course, it is unreasonable to expect immediate change. Changes are rather the fruit of perseverance and educational efforts. But even so, there is no information to predict that such perseverance will result in significant progress over the coming years. There is a relatively high inertia in the performance of the country's schools, as suggested by Figure 2. In general, schools that earned goods results on the Simce 6 years ago did so again in 2002, while those that did poorly at that time did poorly again. Only a few schools managed to revert their "initial situation."

FIGURE 2
FOURTH GRADE MATHEMATICS PERFORMANCE



Moreover, international comparisons suggest that Chile's performance is lower than what its per capita income or educational spending would allow (cumulative or contemporary), by magnitudes that run from 0.18 to 0.36 standard deviations in academic performance.[5]

4 See Eyzaguirre and Le Foulon (2001).

5 Very simple regressions have been made to estimate this using the results from the TIMSS and PISA as dependent variables, and per capita income or current or cumulative spending on education, both of which are adjusted by the purchasing power (they are very correlated and are not used simultaneously). Some controls have been included, such as the size of the classroom, in the case of TIMSS, and socioeconomic indicators.

FIGURE 3
PERFORMANCE IN MATHEMATICS – TIMSS TEST
(PERFORMANCE PERCENTILE)

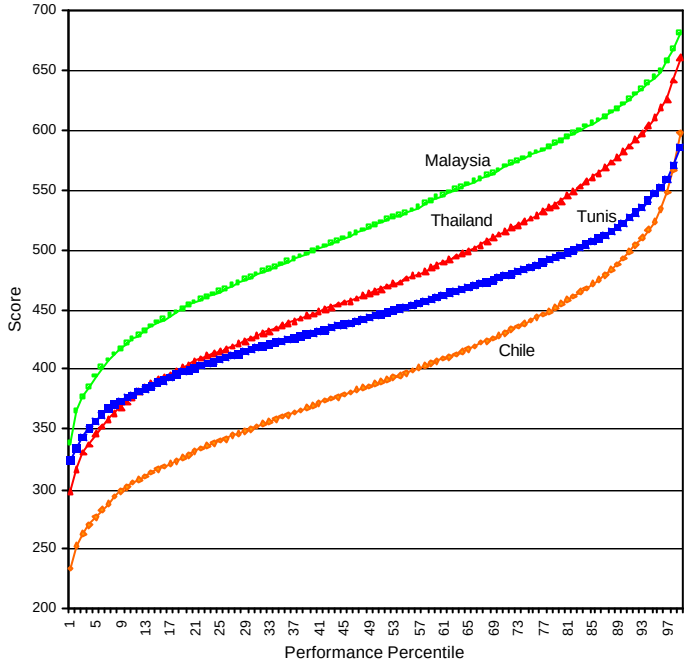


Figure 3 reveals that weak academic performance is quite generalized in Chile. It is comparable to the performance in mathematics for countries with a lower per capita income, where there is less spending on education as well as high inequality (although certainly not as high as in Chile) for each percentile in the distribution of performance. This means that educational standards are low across the entire educational system.[6] This must not lead us, however, to error. Lower income youths are more harmed by an education where there is less learning. Of the fourth grade students who are in the highest decile of academic performance, 27.3% come from paid private schools although they account for only 10% of enrollment. That proportion rises to 33.1% in 8th grade and to 44.3% by the junior year in high school. The "initial advantage" of students that go to private schools is clearly strengthened. Said crudely, the government-financed educational system destroys talents in children of lower socioeconomic levels, and efforts must be redoubled to avoid that situation.

6 The recently disclosed PISA report of reading comprehension for 15 year olds shows that Chile does not have a particularly marked inequality in scores by socioeconomic level. All social groups show a mediocre performance.

3. What is the challenge?

Since we have said that the main deficit of the Chilean educational system is its lack of quality, it is indispensable to advance in the development of an institutional framework that unequivocally ensures that such an objective gains force in the allocation of resources. In terms of Figure 1, this implies moving from trajectory B to A.

What makes an educational system move to a higher curve? The truth is that there is no simple answer. As we said earlier, comparative research does not provide very conclusive answers. We know, however, that an educational system would be lame if the players (students, teachers and authorities, among others), felt no pressure to achieve a good academic performance. In order to achieve this, those schools must be held accountable to the community for the academic results of their students. Few structures are capable of meeting these requirements. State intervention in education must not limit the autonomy of educational establishments, nor alter their incentives to provide quality education. If this is accepted, educational programs directed by the Ministry of Education have no place. Schools must choose the combination of educational inputs most appropriate to their objectives and be accountable for their results. In this scheme of things, the job of the Ministry is to facilitate inputs and ensure that there is no rigidity preventing schools from choosing the combination of inputs they deem most suitable. This is far from what has occurred in Chile. The educational environment is not designed to make schools feel pressure to do well, and the educational authorities play an undeniable role of pedagogical managers where the focus is, moreover, basically on processes and very little on results.[7]

Progress in decentralizing the educational system, handing over government schools to municipalities and deregulating the supply of schools; and the change in the way that education is financed to a per-student subsidy were all, at the time, changes in the right direction. However, among other design problems, no system was created that informed parents of how schools were performing. Only in 1995 was a reporting system implemented for the results of the Simce test. However, the information must be more precise, clear and hopefully provided directly to parents. The reports that many American schools are sending to families are a model to imitate.[8]

The financing system also has serious design problems, including the fact that the subsidy assumes that the cost of providing education is unrelated to the socioeconomic situation of students. In turn, the "municipalization" of education has not yielded the expected fruits. In part because of the lack of information about schooling performance, but also because in many municipalities, the levels of centralization existing when the schools were run by the government were

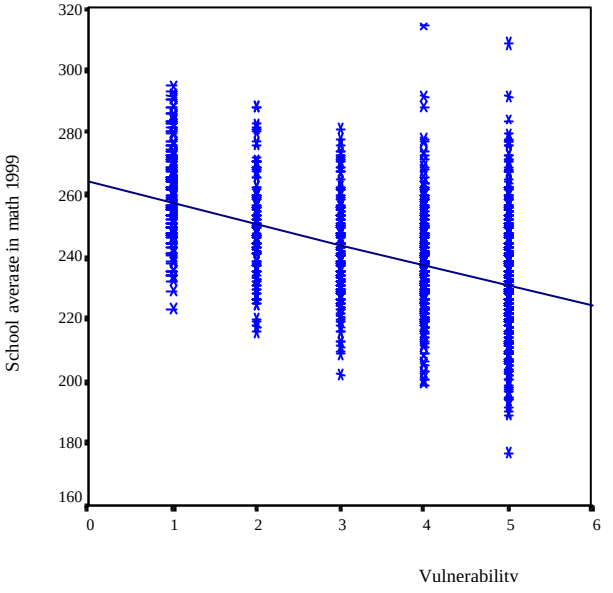
[7] There are more details on this in Beyer *et al.* (2001).

[8] There are many other reasons why the subsidy system created in the early 80's did not yield the expected results. See Beyer (2000).

replicated and even exacerbated. Many of the municipal schools therefore lacked a minimum of autonomy to implement educational projects. Also important is the fact that the quality of education is not necessarily one of the priorities of mayors. Moreover, students often change from one municipal school to another, so there is no impact on municipal finances. This dilutes the incentives to improve the management of municipal schools.[9] Lastly, nearly 20% of the boroughs in the country have no private schools. Another 40% face a very limited competition from the private sector.

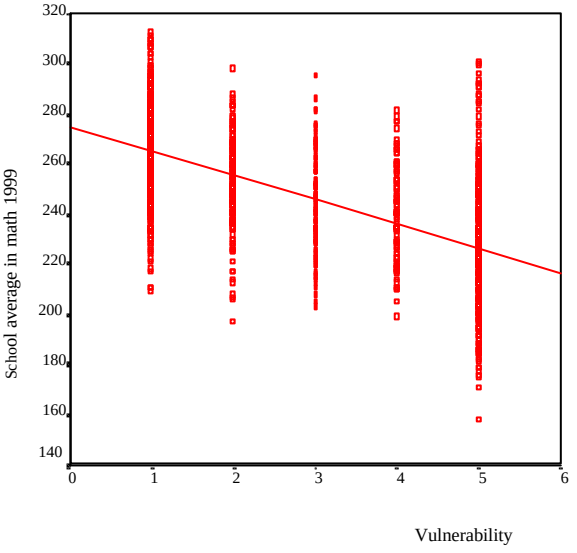
FIGURE 4
SIMCE RESULTS IN MATH: 4TH GRADE 1999
(URBAN SCHOOLS BY VULNERABILITY GROUP)

a) Municipal schools



9 Some of the problems in design of the Chilean educational system are discussed carefully by Aedo and Sapelli (2001).

b) Private subsidized schools



The design problems affecting the educational system have been aggravated in recent years, instead of being corrected.[10] Also of influence is a deeply rooted belief that teachers will be incapable of dealing with the current educational challenges. The Ministry acts as if they believe they would be a bottleneck impossible to overcome, which is why the Ministry has wanted to guide the educational process. But there is no evidence that this is truly so. For example, Figure 4 shows that there is a significant dispersion in the results of subsidized private schools and municipal schools in each of the vulnerability groups established by the Ministry of Education. It follows that there is no material justification for those ministerial apprehensions. It could be argued that the schools with good results keep only good students (which is what teachers usually argue), but there are no differences in the dispersion of results within good and bad performing schools, so there is no evidence in favor of such claim.[11]

It is the schools themselves that must deal with the challenges imposed by greater accountability for results. One of the greatest challenges in developing institutions that pressure schools to do well, is dealing with the teachers labor statute and the rigidities due to the municipalization of education. One possible road is to allow parents to "intervene" municipal schools where performance is weak. This intervention could occur, for example, whenever a municipal school obtains results below the national average or in the lower third of performance.[12]

10 See Beyer (2000).

11 See Beyer (2003).

12 There may be another specific standard. It is important that it be transparent and applied without exception.

The majority (or two-thirds of parents) must back that decision in order to make it a reality. Operationally, the management of the school would be left to parents. They can appoint a new principal. The administrative staff and teachers would lose some of the privileges conferred by the teachers labor statute, in particular tenure. In this scheme of things, the labor statute is a "benefit" that continues only if the results of the schools are good. Otherwise, the benefits are forfeited to the parents of the children attending those schools.

4. Conclusions

I have discussed a central issue in the development of Chilean education, but it is far from being the only one. Educational issues do not stop here. Yet I believe that if we do not take this fundamental step, dealing with many of those other issues will not yield the expected fruits. Schools more accountable for the academic results of their students are indispensable if one wants to create a virtuous educational dynamic. Of course, it also involves risks. Schools may displace students with low results in order to show quick progress, but there are ways to minimize these risks. Lastly, the potential benefits of a more accountable and transparent educational system are so significant that it is worth taking that risk no matter what. There are, of course, alternatives to explore and imagine, but the important thing is to start trying out alternatives right away that will help us effectively rise to a trajectory in which spending on education is more fruitful than what it has been thus far.

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