Revamping the Thai Education System: Quality for All

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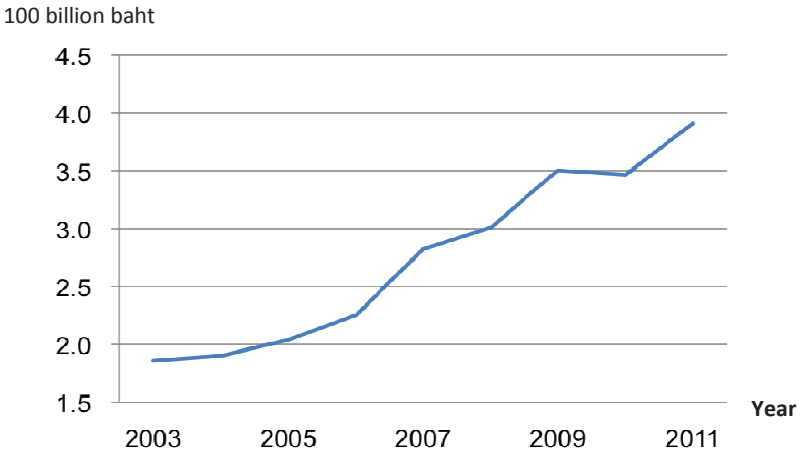
1. INTRODUCTION

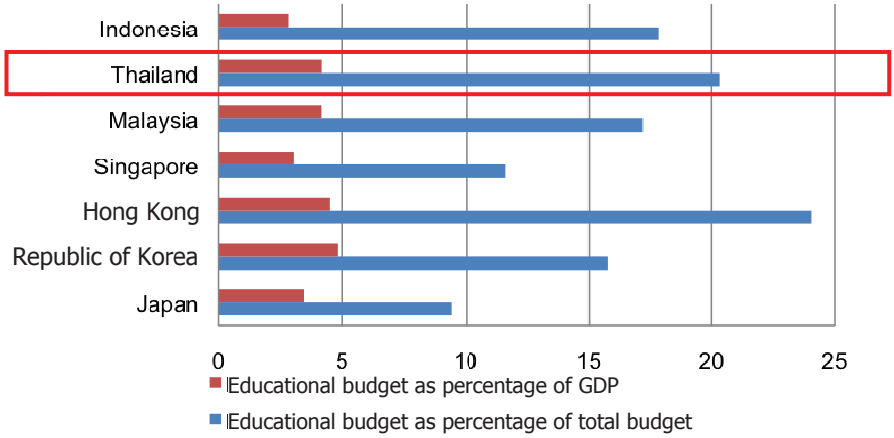
The Thai education system is widely perceived to be the inadequately financed, but the data on educational spending and student performance suggest otherwise (Figure 1). In the past 10 years, Thailand's education budget has more than doubled, reaching 4 percent of gross domestic product (GDP) and accounting for up to 20 percent of the total government budget (Figure 2), which is no less than that of most other Asian countries. In addition, many parents spend considerable amounts of money on private tutoring. Thai students also spend more time in class compared with students in other countries (Figure 3). In sum, the financial resources spent by the Thai government and households are substantial and cannot be considered inadequate.

Figure 1 Annual Budget of the Ministry of Education between 2003 and 2011



Source: Bureau of the Budget (various years).

Figure 2 Educational Budgets as Percentage of GDP and Total Budgets of Thailand and Selected Asian Economies



Source: World Bank website at: data.worldbank.org/topic/education.

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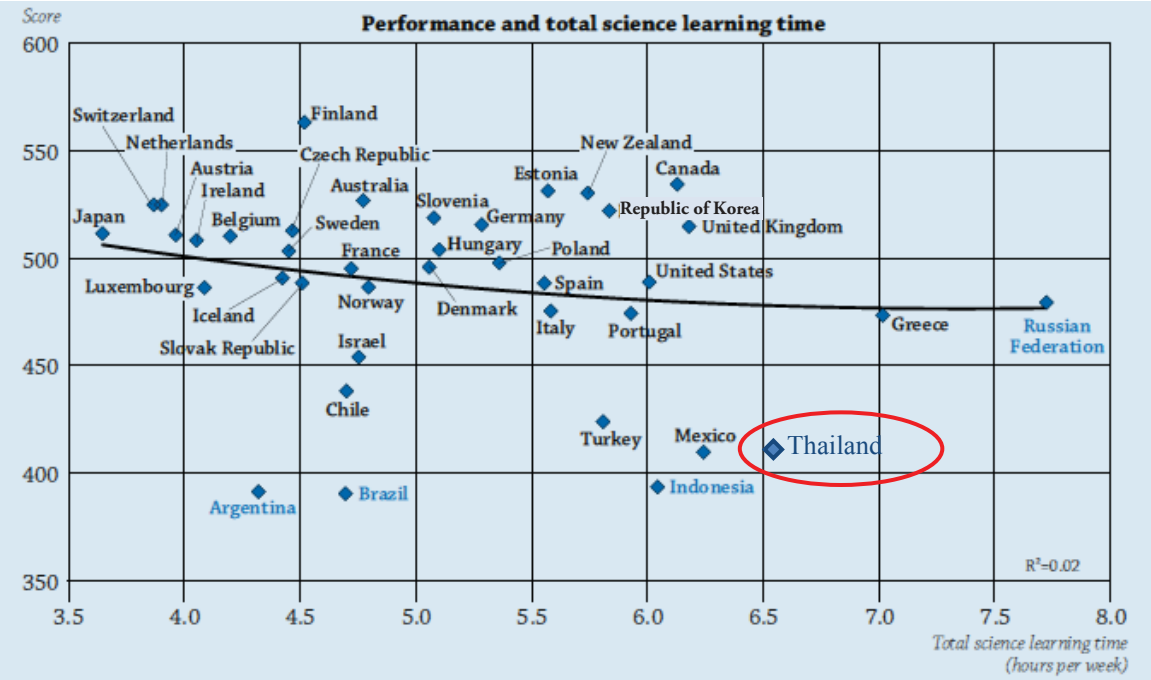
Figure 3 Total Science Learning Time (hours/week) and Programme for International Student Assessment (PISA) Test Scores for Science, in Thailand and Other Countries

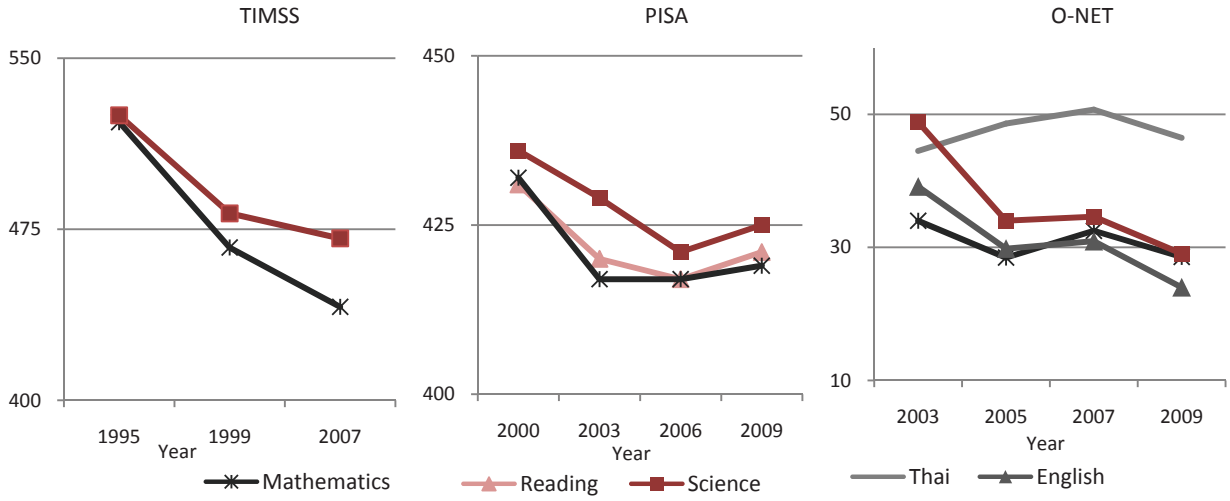


Source: OECD (2011).

However, the level of educational achievement of Thai students is not in line with the increase in financial resources, as student performance measured by both national and international standardized tests is declining (Figure 4). At the same time, certain groups of students continue to perform significantly better than the rest of their peers. Students in demonstration schools affiliated with universities and students in Bangkok score highest in all tests (see Figures 5 and 6).

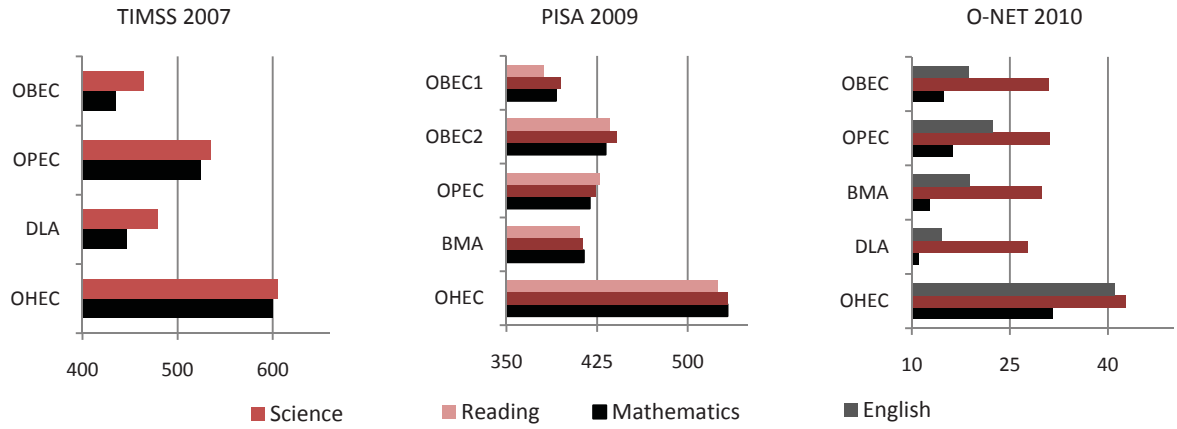
The data show that increasing financial resources alone would not improve the quality of education across the board. To provide access to good-quality education for all children, existing resources have to be utilized more efficiently. One way to do that is to create a system that fosters accountability. This article explores key challenges in school management and education financing in Thailand through an accountability perspective, and recommends policies to create an accountability system that would improve the quality of Thai education.

Figure 4 Scores of Thai 12th Grade Students, Taking the Trends in International Mathematics and Science Study (TIMSS), Programme for International Student Assessment (PISA) and Ordinary National Educational Test (O-NET)



Sources: TIMSS: nces.ed.gov/timss and timss.bu.edu, PISA: www.pisa.oecd.org, and O-NET: www.moe.go.th/data_stat/ and www.niets.or.th.

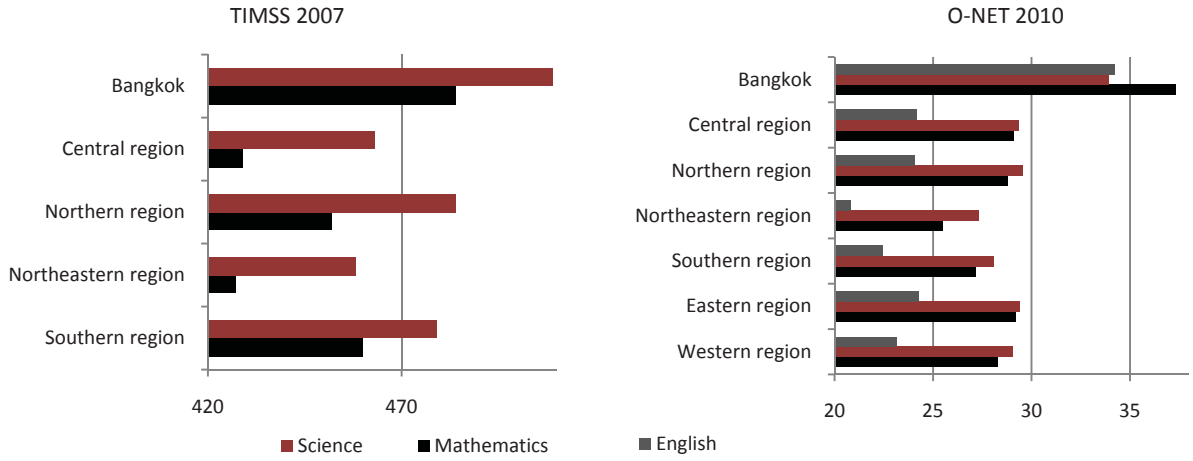
Figure 5 Average Scores, by School Affiliation, Achieved in Trends in International Mathematics and Science Study (TIMSS), Programme for International Student Assessment (PISA) and Ordinary National Educational Test (O-NET)



Notes: OBEC: Office of the Basic Education Commission, OPEC: Office of the Private Education Commission, DLA: Department of Local Administration, OHEC: Office of the Higher Education Commission, and BMA: Bangkok Metropolitan Administration.

Sources: TIMSS: IPST (2008), PISA: IPST (2010), and O-NET: www.niets.or.th.

Figure 6 Average Scores, by Region of Thailand, Achieved in Trends in International Mathematics and Science Study (TIMSS) and Ordinary National Educational Test (O-NET)



Sources: TIMSS: IPST (2008), and O-NET: www.niets.or.th.

2. THEORETICAL FRAMEWORK

2.1 General Framework for Improving the Quality of Education

A successful reform to improve the quality of education must start with accurate understanding of the issues. In this section, we summarize the main findings from recent studies.

- Education quality, not quantity, is the main contributing factor to long-term economic growth (Hanushek and Wößmann 2007 and 2011).
- Increasing financial resources alone does not guarantee success in improving the quality of education. The case of Thailand outlined above reflects this finding.
- Quality of teachers is significant with regard to student achievement (Hanushek 1992).
- Effective education reform must incorporate the creation of an accountability system. This is probably the most important component of educational reform, since a working accountability system is vital to the success of other reforms.

To repeat, the challenge Thailand is facing is not lack of resources, but inefficiency in utilizing existing resources as a result of the absence of an accountability system. Therefore, the first stepping stone to improve

the quality of education is to create a working accountability system which enables other reform initiatives.

2.2 Framework for Educational Accountability System

For a person or an organization to be accountable, the outcomes on assigned goals of that person or organization must be evaluated by the people who assigned the goals, and the evaluation must entail reward or punishment for the person or the organization.

In many countries, including Thailand, the state is heavily involved in administering and providing educational services. As a result, the state becomes the agent that must be accountable to parents. At the same time, public and private schools receiving full or partial funding from the state must be accountable to the state in providing students with good-quality education. Parents can reward or punish politicians through elections and other political activities. This creates a long route of a "parents-state-school-teachers" chain of accountability (Figure 7). In practice, there are many possible disconnects in this long chain of accountability. People do not always have access to politicians. Elected officials do not always have control over the Ministry of Education's policy. The Ministry cannot directly control the quality of all the schools. As a chain is only as strong as its weakest link, this long route of accountability is prone to breakdowns.

There are two possible ways we can strengthen the accountability chain. The first is to decentralize educational administration, allowing parents to gain more access to local politicians. However, this has not proved successful, since the problem of the disconnect between politicians and schools is still present. The second solution, which is more likely to be successful, is to create a short-route "parents-school-teachers" accountability chain, where a disconnect is less likely to occur.

Studies have shown that schools under an accountability system perform better than those outside such a system. For example, Hanushek and Raymond (2004), in studying schools in the United States, found that students in schools that publish their test scores perform better on standardized tests than those in schools without any accountability system, and students in schools that reward or punish teachers based on test scores perform even better (Figure 8).

2.3 Key Components in Creating a School Accountability System

Three reform components in creating the short-route accountability chain are as follows.

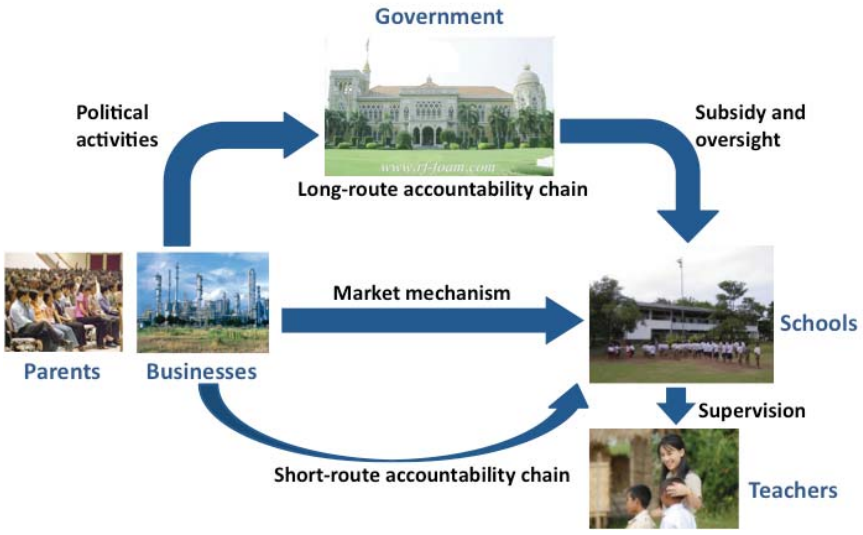
2.3.1 Information Reform

School information has to be transparent and available to parents. This includes information about responsibilities and rights of all stakeholders, school resources, school curriculum, and data on student performance. Transparency will mitigate the problem of information asymmetry between parents and schools. Parents will be able to choose high-quality schools for their children, and this will affect the subsidy that schools receive from the state under a demand-side financing scheme (see section 4.3).

2.3.2 School-based Management Reform

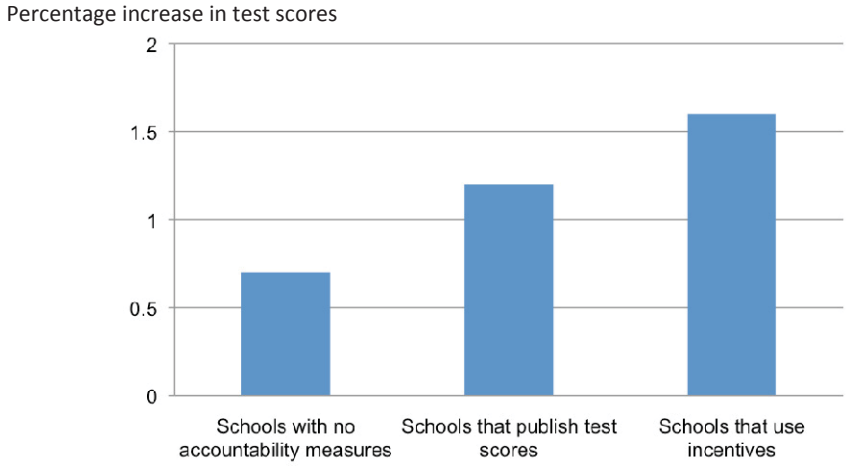
Because schools understand their own needs and constraints better than a centralized state administration, schools should have more academic and administrative autonomy. At the same time, the accountability chain can be strengthened by increasing parent involvement in school management.

Figure 7 Accountability Framework



Source: Modified from Bruns et al. (2011).

Figure 8 Effect of Educational Accountability on Student Achievement



Source: Hanushek and Raymond (2004).

2.3.3 Teacher Incentive Reform

No reform will improve student performance if it does not directly alter how teachers teach. Currently, as state employees, teachers enjoy the highest level of job security available in Thailand. In addition, the promotion of a teacher is not determined by student performance, but by how long a teacher has been in the teaching profession. The key to getting teachers to teach better is incentive reform. A pay-for-performance system, connecting hiring and promotion with student performance, will achieves the goal of altering how teachers teach.

A requisite for achieving any of these three types of reform is to obtain an accurate indicator of student performance, generally through standardized testing.

3. EXAMPLES FROM OTHER COUNTRIES

3.1 School Report Cards

In Paraná, Brazil, the state disseminates school report cards to parents. The report cards show the average score of students in the fourth and eighth grades, the grade repetition rate, and the dropout rate. The information is presented in comparison with school district and state averages. The effect of school report cards has not been studied, but initial evaluation indicates that they encourage parents to be more actively involved in public discussion about school management and policy (Bruns et al. 2011).

3.2 No Child Left Behind in the United States

The No Child Left Behind Act of 2001 was initiated under the administration of President George W. Bush. The United States federal government requires that all schools receiving state subsidies have their students participate in standardized testing administered by the state. Each school must make Adequate Yearly Progress in test scores for students in all racial groups. If a school continually fails to achieve progress, it suffers punitive measures. For example, if it fails for six consecutive years, the school can be closed down or turned into a charter school.

3.3 Teacher Incentives

Many countries have initiated pay-for-performance systems for their teachers, and there is evidence that incentives improve the quality of teaching. Pay-for-performance systems take various forms. Teachers can be rewarded individually or collectively. Criteria for teacher performance range from improvement in standardized test scores, difference between predicted and actual test scores, college/university admission rate, dropout rate, and graduation rate, to teacher absence record.

In the state of Andhra Pradesh, India, teachers are rewarded with a bonus, individually and collectively, when students' test scores improve by 5 percent. Teachers in this program are found to increase their workload and pay more attention to low-performing students; as a result, their students perform better compared with other students. In Pernambuco, Brazil, teachers are rewarded with a bonus collectively when schools reach 50 percent of the expected Index of Basic Education Development. Each teacher's individual reward depends on the teacher's attendance record. As a result, teachers increase class time spent on teaching, enabling students to participate more (Bruns et al. 2011).

There are benefits and drawbacks to each pay-for-performance model. For example, rewarding teachers as a group fosters collaboration, but this can lead to a so-called free-rider problem. Rewarding teachers individually can be counterproductive to collaboration, as it encourages teachers to favor teaching high-performing students. A combination of

individual and collective rewards could minimize the negative effects of both models.

The key to success in a pay-for-performance system is that the incentives ultimately alter teachers' behaviors. The incentives have to be compelling, attainable, and fair. Factors that are out of teachers' control must be excluded, and the model has to be culturally sensitive.

3.4 Criticism of Standardized Testing

As mentioned previously, standardized tests are crucial to educational accountability. It is important for standardized tests to be really indicative of the quality of learning and student performance.

One major criticism of standardized testing is "teaching to the test." However, teaching to the test should not be viewed as inherently damaging. Tests can be designed so that they stimulate the teaching of valuable skills, for example, by using literacy-based tests instead of content-based tests, and avoiding multiple-choice tests. Another criticism is that standardized testing narrows the curriculum, but this problem can be solved by broadening the scope of the tests.[1]

Schools and teachers may have conflicts of interest that lead them to game the system in order to inflate test scores, for example, by excluding low-performing students from the tests, pressuring low-performing students to drop out or even cheat. This problem can be solved by comparing test scores to other indicators that correlate highly with test scores.[2]

Another concern is that standardized tests put schools with a high percentage of students in low socio-economic status at a disadvantage, since test scores depend on many factors beyond their teachers' control. However, this problem can be avoided by using the change in test scores instead of raw test scores in teacher and school evaluations.

4. CURRENT EDUCATIONAL ACCOUNTABILITY SYSTEM IN THAILAND AND CHALLENGES

4.1 Decentralization of Education

Since the National Education Act of 1999 was legislated, three forms of decentralization have been put into effect. The three forms include transferring public schools under the Office of the Basic Education Commission (OBEC) to local administrations, increasing the autonomy of school districts, and increasing the autonomy of schools. However, overall decentralization measures have not yielded tangible improvement with regard to school accountability.

Transferring schools from OBEC to local administrations has had a limited beneficial effect. Only 3 percent of schools and 7 percent of students are affiliated with local administrations (Parandekar 2011). School districts have seen much improvement in terms of numbers; currently, there are 185 school districts in Thailand, which oversee 150-200 schools per district. However, in practice, decision-making is still centralized at higher levels of administration. While schools now have autonomy over their per capita subsidy and their curriculum, schools still do not have autonomy over the hiring and firing of teachers, which means teachers are not accountable to the schools. In addition, even though it is mandated by law that parents and community members serve on school boards, in practice involvement from the community is very limited.[3]

4.2 Evaluation System for Basic Education

In Thailand, there are three components of the evaluation system for basic education.

4.2.1 Student Evaluation

Students have to take multiple standardized tests. Nationally, the National Institute of Educational Testing Service (NIETS) administers the Ordinary National Educational Test (O-NET) tests in the 6th, 9th and 12th grades, and the National Tests (NTs) in the 3rd and 6th grades. Locally, there are tests that are part of the local assessment system (LAS) in the 2nd, 5th, and 8th grades. However, with the exception of O-NET, which is used for gaining admission to university, these tests do not have any effect on the students taking the tests or on their teachers. In addition, information about schools' average test scores is not publicly available.

4.2.2 Teacher Evaluation

For OBEC schools, school principals twice a year appoint a committee according to the Office of the Teacher Civil Service Commission's guideline to evaluate teachers' performance for the purpose of assessing whether they qualify for a salary increase. In addition, teachers are assessed in order to obtain different levels of accreditation, based on which they receive additional compensation. However, student performance carries little weight in both teacher evaluation schemes, so instead of focusing on teaching, teachers are incentivized to spend time and effort on producing paperwork, which matters more than other factors in the current evaluation system.

4.2.3 School Evaluation

The Office for National Education Standards and Quality Assessment (ONESQA) administers a nation-wide school quality assessment every five years. The first round of assessment was between 2001 and 2005, and the second was between 2006 and 2010. The assessments entail examining school documents, interviewing school personnel and students, and classroom observation. However, the results of the assessment

system as currently practiced did not reflect student performance. While student performance was declining, the number of schools of all school affiliations that passed the assessment increased dramatically (Figure 9).[4]

The assessments were not only ineffective in improving student performance but also created a burden on both schools and teachers. To prepare for school inspection, teachers had to spend a lot of time on paperwork. A study conducted by the Ramajitti Institute found that 83 percent of the teachers spent 20 percent of their time on paperwork, and 10 percent of the teachers spend 50 percent of their time on that activity (Wittayakorn 2009). In addition, the assessments were also costly for the state as each round of assessment costs 1.8 billion baht, or approximately 45,000 baht per school.

4.3 School Financing

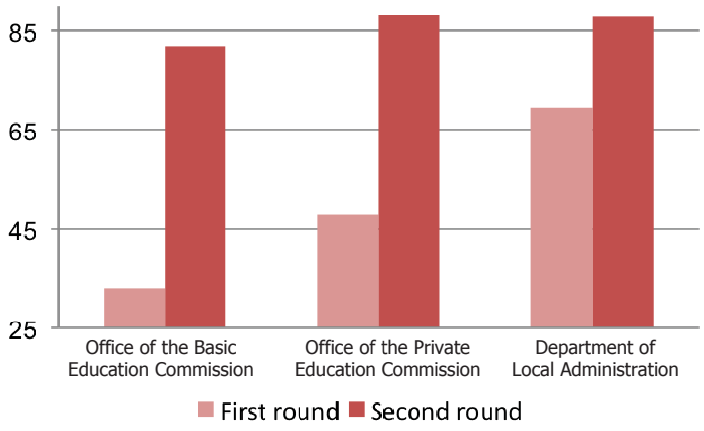
Currently, the school-financing system in Thailand is tilted toward a supply-side financing scheme. Of the total funding the state allocates to public schools, 75 percent of the money is for teachers' salaries and investment, and is not directly dependent on the number of students. Only 25 percent of the money represents a student per capita subsidy for school operational budgets. Since the number of students attending each school does not affect its funding in a significant way, there is no incentive for schools to improve their quality in order to retain or attract students.

The current financing system also puts private schools at a disadvantage vis-à-vis public schools. Private schools that choose to receive a subsidy from the state will receive the same student subsidy per capita as public schools. They would also receive marginally additional funding from the 15-year Free Education Project, and a small subsidy for teacher salaries. In return, the government imposes a cap on how much tuition these private schools can receive from parents.

Initially, the cap on tuition was aimed at preventing private schools from overcharging parents, and was set at such a level that the total per student income of private schools was equivalent to that of public schools. However, over the past 10 years, public school teachers' salaries grew significantly, while the subsidy to private school teachers remained stagnant (Figure 10). This creates a growing discrepancy in teacher salary between public schools and private schools (see Figure 11). As a result, there is a high turnover rate of teachers migrating from private to public schools. In 2011 alone, 2,000 private school teachers left to join public schools. Under such circumstances, private schools cannot compete with public schools. Private schools that decline government subsidies have more flexibility in setting their tuition fees and thus tend to offer higher-quality education, but are not accessible to students from low-income families.

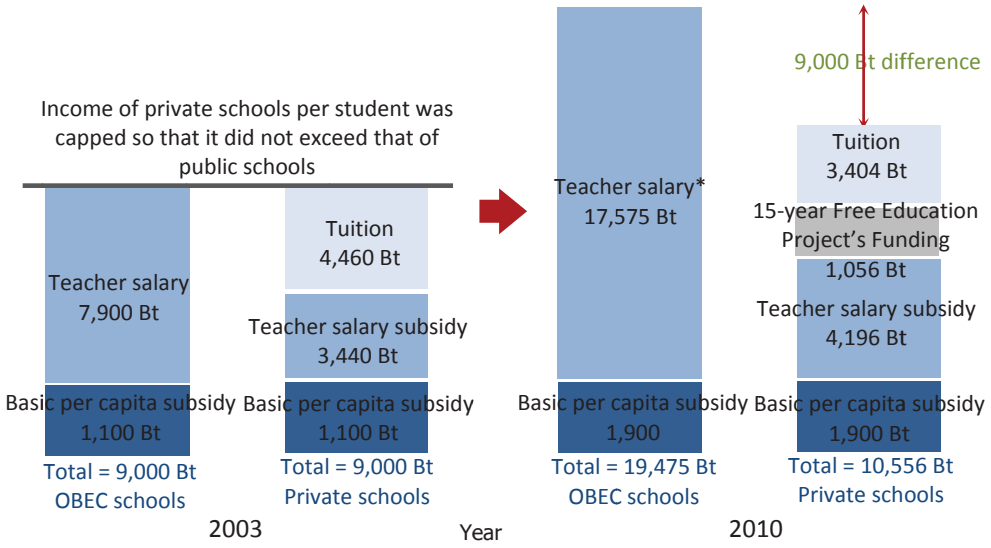
According to the accountability framework, demand-side financing is more compatible with the short-route accountability chain (Figure 12). Currently, the per capita subsidy is relatively insignificant compared with the total budget, and it gives no incentive for schools to improve. On the contrary, in demand-side financing, the school budget is contingent upon enrollment; therefore, demand-side financing will foster productive competition among schools. Schools will compete to attract students by improving the quality of education they offer students.

Figure 9 Percentage of Schools that Passed Quality Assessments by the Office for National Education Standards and Quality Assessment



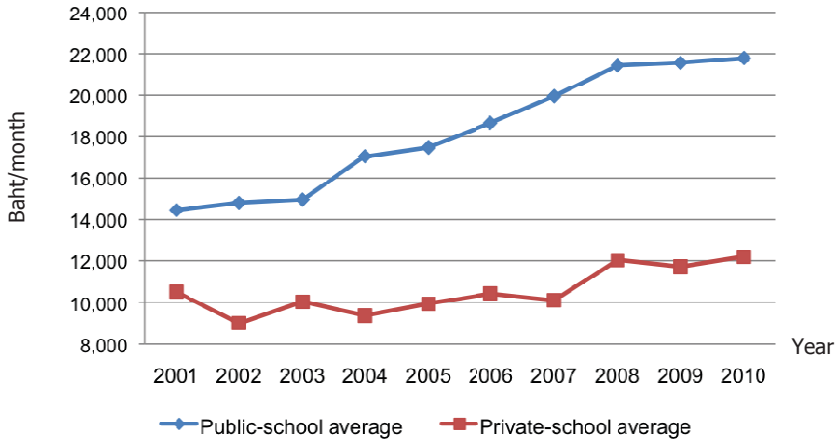
Source: ONESQA (2007 and 2010).

Figure 10 Comparing State Subsidies for Public and Private Schools in 2003 and 2010



Note: * Authors' calculation from data of the Bureau of the Budget.
Source: Notification of the Ministry of Education.

Figure 11 Average Salary of Public-school and Private-school Teachers



Source: Labor Force Survey, National Statistical Office (various years).

Figure 12 Accountability Mechanism under Demand-side Financing

Source: Authors.

4.4 Limitations on School Competition

While competition can improve school quality, there are certain factors that are currently limiting school competition:

1. *Transparency in test scores.* Currently, schools' average test scores are not publicly available. Without information on schools' average test scores, parents and students lack crucial information needed to choose schools.

2. *Criteria for admission mandated by OBEC.* Pre-elementary and elementary schools affiliated with OBEC have to grant admission by lottery first to students who reside in the school district area. Schools can accept students from other school districts only when there are additional seats available. This rule

imposes a constraint on students who reside in a district where there is no high-quality school.

For secondary schools, the rule is more relaxed. Schools are allowed to grant admission based on admission test score. However, many schools purposely schedule the test or interview dates so that they are in conflict with those of other schools. As a result, students' choice is limited (IPST 2011).

3. *Supply of good schools*. Even in an area where there are many schools from which students can choose, if all the schools are equally poor in terms of quality, students' real choice is limited.[5] Students might not be able to move out of a low-quality school, because there is no better one in the area.

5. POLICY RECOMMENDATIONS

To implement the accountability system, we propose the following policy recommendations:

1. *Mandate standardized tests*. The Ministry of Education should mandate a standardized test at every grade level, or at least one every three years, for all students of all school affiliations. In addition, standardized test scores should replace total grade point average (GPAX) and grade point average (GPA) in university admissions to ensure fair competition.
2. *Improve tests*. Standardized tests should be indicative of the quality of learning. We have to shift from content-based tests to literacy-based tests, in order to promote critical thinking skills rather than rote learning.
3. *Produce school report card*. The government should mandate that the standardized test scores of every school be available to the public. Each school should have to produce a school report card, which includes the school's average test scores compared with district and national averages.
4. *Revamp the current ONESQA school quality assurance system*. The current system places a fiscal burden on the state, and a time burden on schools and teachers; moreover, its results do not correlate with student performance.
5. *Use students' test scores to evaluate schools and teachers*. School and teacher evaluations should be linked to student performance as measured by standardized tests. Improvement in test scores, not raw test scores, should be used so that the evaluations account for different student backgrounds. In addition, an audit mechanism is necessary to discourage school administrators and teachers from gaming the system.
6. *Reward school administrators and teachers according to student performance*. The reward can take a monetary or other form, such as public recognition, or grant of autonomy in administration and teaching.
7. *Provide support for low-performing schools*. Such schools should receive administrative and curricular support for capacity-building. For example, they should receive support for conducting formative assessment to improve teaching and learning.
8. *Allow schools to have autonomy with regard to their personnel*. This will create a mechanism that holds teachers accountable to schools.
9. *Adjust school subsidy*. We need to shift to demand-side financing, because the current supply-side financing fails to create an accountability mechanism. The per capita subsidy needs to be adjusted to reflect actual costs.
10. *Provide equitable funding for both public and private schools*. The government should furnish funding equitably to both public and private schools. Otherwise, the government should eliminate the tuition cap on private school tuition, in order to allow fair competition between public and private schools.

ENDNOTES

[1] Still, there are some limitations. For example, it is difficult to design a test to measure students' sense of moral obligation and sense of civic responsibility. However, in our opinion, schools should not be solely responsible for educating youth on these issues.

[2] In the United States, indicators that highly correlate with test scores are grade repetition rate, suspension rate, and dropout rate. Indicators that moderately correlate with test scores are facilities, percentage of students taking the test, teacher and student absence rates, and length of school year. Indicators that do not correlate with test scores are college admission tests, number of programs offered, number of computers, number of uncertified teachers, parent satisfaction and school violence (see Hanushek and Raymond 2002).

[3] The school board for a small school consists of nine people: a chairperson, a parent, a teacher, a community member, a representative from local government, an alumnus, a representative from a religious community, an expert, and the school principal. In a large school, the board consists of 15 people: in

addition to the nine persons on a small school board, there would be an additional representative from a religious community and five more experts.

4 The results of the two rounds of quality assurance cannot be strictly compared as there were some minor methodology changes.

5 A survey by PISA (2009) (www.pisa.oecd.org) shows that 68 percent of schools have to compete with at least two other schools in the same area, and only 14 percent do not have to compete with any other school.

REFERENCES

Bruns, Barbara, Deon Filmer, and Harry Anthony Patrinos. 2011. *Making Schools Work*. Washington, D.C.: World Bank.

Hanushek, Eric A. 1992. "The Trade-off between Child Quantity and Quality." *Journal of Political Economy* 100(1): 84-117.

Hanushek, Eric A., and Ludger Wößmann. 2007. *The Role of Education Quality in Economic Growth*. Washington, D.C.: World Bank.

_____. 2011. "How Much Do Educational Outcomes Matter in OECD Countries?" *Economic Policy* 26(67): 427-491.

Hanushek, Eric A., and Margaret E. Raymond. 2002. "Improving Education Quality: How Best to Evaluate Our Schools?" Pp. 117-130 in Kodrzycki, Yolanda K. (ed.), *Education in the 21st Century: Meeting the Challenges of a Changing World*. 47th Economic Conference. Boston: Federal Reserve Bank of Boston.

_____. 2004. "Shopping for Evidence against School Accountability." Pp. 119-130 in William J. Fowler, Jr. (ed.), *Developments in School Finance: 2003*. Washington, D.C.: National Center for Education Statistics.

Institute for the Promotion of Teaching Science and Technology (IPST). 2008. *Report on TIMSS Performance.* Bangkok. (in Thai)

_____. 2010. *Report on PISA Performance.* Bangkok. (in Thai)

_____. 2011. *Success Factors for School System*. Bangkok.

Office for National Education Standards and Quality Assessment (ONESQA). 2007. *Annual Report 2007*. Bangkok.

_____. 2010. *Report of External Quality Assessment (2006-2010)*. Bangkok.

Organisation for Economic Co-operation and Development (OECD). 2011. *Education at a Glance 2011: OECD Indicators*. Paris: OECD Publishing.

Parandekar, Suhas. 2011. *Analysis of Efficiency of Education Expenditures Thailand: Public Finance Management Report*. Washington, D.C.: World Bank.

Wittayakorn Chiengkul. 2009. *The Current Situation of the Thai Education System 2007-2008: Inequality and Quality*. Bangkok: Office of Education Council. (in Thai)