a public policy essay

The Importance of Quality Teachers

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Adrian Gibson in the June 30th Nassau Tribune called Bahamian public education an "inadequate sham" and described this year's public high school leavers in colorful terms, a horde of "arithmetically-challenged halfwits" who get a certificate of attendance instead of a diploma.

He was equally critical of parents who treat their offspring to "a lavish and wildly garish" graduation prom when their children leave school.

And the Department of Education faired no better. They were "cronies, nepotists and position seekers" who are vindictive and repress progress.

This portrayal of the public education was indeed colorful; but it never talked about the consequences of the status quo or the quality of the teaching, nor the difficulty of reforming the system. This essay will explore those issues.

Another perspective

This Bahamian reality has grave economic consequences for the future of those students who do not reach their potential; but also their collective failure deprives the nation of the skills necessary to fuel sustained economic prosperity.

There is universal agreement among the world's leading economists in this regard. A study published in January 2007 by the National Bureau of Economic Research (NBER) examined the economic impact that can be expected with education reform. It covered 70 countries and concluded -

1. Improvement in education quality as measured in standardized tests is substantially more important for economic growth than education quantity, the number of grades completed.

2. "The positive effect of the quality of education on economic growth is very robust." Freedom to trade and the rule of law also have a positive effect; but the quality of education has the greater impact.

3. The long-term analysis suggests that the returns to a successful education reform program versus the alternative of no change in education quality could be a real Gross Domestic Product 36 percent higher.

Gary S. Becker, the 1992 Nobel Laureate in Economics, goes so far as to say "Large increases in education and training have accompanied major advances in technological knowledge in all countries that have achieved significant economic growth."

Another important insight from this NBER research is that the economics of education suggests that keeping students in school, when they fail to acquire skills, is a waste of scarce national resources, a diversion that does not add to the individual and collective human capital of the nation.

The Crisis at a Glance

If one looks at the big picture and if one uses the standard measure of "universal education", the average number of years in school by the average adult, then one can say that –

The country was very successful after Majority Rule. "There was, according to the 1970-2000 census data, a significant increase in the number of years of schooling attained by the adult population."

However, the rapid expansion of public education system was accompanied by a precipitous reduction in the academic qualifications for new teachers and in the academic standards for students.

If one measures what children learn and can do, then one concludes that -

Public education in the Bahamas has been stalled in a long-standing educational malaise.

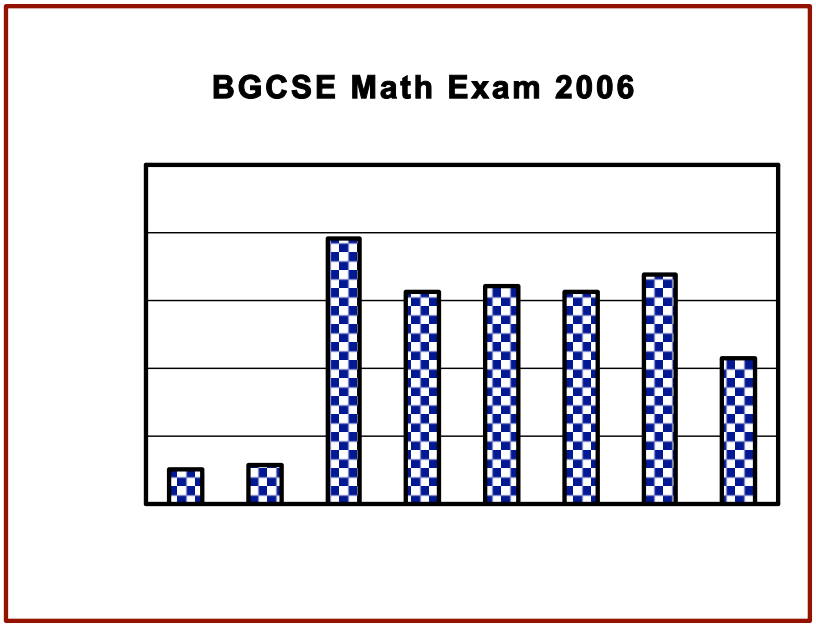
This is evident in -

- The annual BGCSE examination [1] scores for public and private schools combined that have fluctuated between D+ and D- since this testing began in 1993 and
- The Government High Schools graduation rate that reportedly hovers around 50% of the total students leaving school.

The overall BGCSE results in 26 subjects for public and private schools combined are released annually to the public whereas the public high school graduation data is not.

A Closer Look

In 2006 4,526 students from 90 separate Bahamian schools wrote the BGCSE exam in mathematics that was graded at eight levels of achievement (A, B, C, D, E, F and U) rather than the five commonly used elsewhere. This data is shown in the graph to the right.



Of the total, 2.6% got an "A" while 10.7% got a "U"; 2.8% got a "B" while 17% got a G. The 10.7% and the 17%, the "Gs and Us", just look scary - "What do they really mean?"

The BGCSE system sets performance benchmarks for four grade levels: "A", "C", "F" and "U" and the intermediate standards and scores are interpolated between these points.

As an example, an "A" student can manipulate algebraic equations – linear, simultaneous and quadratic; while a "U" student is not be able to add, subtract, multiply or divide even when using a calculator.

The graph shows that the star performers, those getting "As" or "Bs" are below 3%. The "Gs" plus the "Us" account for 27.7% of the total and are defined as "functionally illiterate". Alarming is that 59% of total grades are to the right of the "D" grade ("Es" + "Fs" + "Gs" + "Us"). Placing this into perspective is difficult.

More threatening is the global reality seen in the international community's report, Trends in International Mathematics and Science Study ("TIMSS"). On the surface TIMSS is very similar to the BGCSE system. It sets benchmark standards for Low, Intermediate, High and Advanced performance. It would take an education test specialist to compare accurately the BGCSE and TIMSS benchmarks.

However, the TIMSS states that in "Low Performing Countries" zero to four percent of the students earn the high benchmark grade. In the 2006 BGCSE exam 2.56% of all students got an "A" indicating that by this measure the Bahamas would be below their Basic Literacy line.

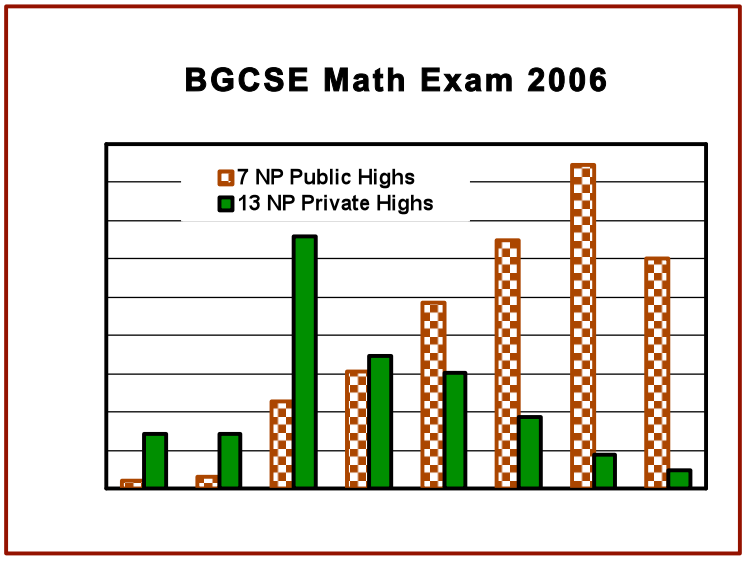
It also states that in Low Performing Countries about half or fewer reach the Low Benchmark. Clearly the 27.7% of the exam writers who are functionally illiterate do not meet that test. Without the skills and insights of a testing expert, one cannot say

just how to relate those Bahamian students who earned "Es" and "F" to the TIMSS scoring system.

The picture, however, becomes more transparent if one goes behind the BGCSE scores.

Cognitive Skills Shortage

The graph shows the mathematics scores for the 7 public and 13 private high schools on New Providence; 1,581 students from the Public and 794 from the private high schools sat the test. The Public High scores are grouped to the right side of the scale and visibly centered on the "G" grade while the Private school scores are centered on a "C".



It is clear that the Public School system is the principal locus of the Shortage. In the Public Schools 0.6% of the total students sitting the exam got an "A" and 45.7% got "Gs" plus "Us". The conclusion is "Public schools do not meet the minimum of any Basic Numerical Literacy standard".

This data measures, as close as is now possible, the cognitive skills of Bahamian students leaving high school - their capacity to learn, know facts, use concepts, solve problems and reason. The overall low level of educational achievement should be considered unacceptable by Bahamian society; and the nation must confront this reality in its long-term interest.

The question is "Does it have the collective will to do this?"

There is an urgency today that is especially daunting because of the environment within which The Bahamas exists. It is one of accelerating technological change; and one where the "protective barriers" once provided by distance, language and government are disappearing. Technological change increases in varying degrees the complexity and pace of virtually all jobs at all skill levels.

Furthermore…

- The educational malaise of the Bahamas has been experienced throughout the world including the United States.

In the case of the United States the academic achievement of high school leavers peaked in 1964 just as it began a half-century of sustained growth in education expenditures. The national government spent $125 Billion Dollars from 1965 to 2001 "to improve the quality of education in high-poverty schools and/or give extra help to struggling students." In constant dollars, the funding doubled. Yet…the test scores on academic achievement showed no significant improvement.

- However, during the last 50 years some countries did not get caught in this malaise. These countries included Ireland and

Finland in Europe and Japan, Singapore, Taiwan and South Korea in Asia. Education became their springboard into the global economy.

Their economic emergence changed the global competitive landscape and is forcing other countries to improve their educational systems.

A failure to confront the Cognitive Skills Shortage in the Bahamas condemns it to an excessive reliance on non-Bahamian manpower to meet its legitimate needs. This is likely to produce both slower growth and social and political conflict that can be avoided or minimized with sound policies and a national will to do so.

The Impact of High-Performing Teachers

There are many reasons given by social scientists, teachers and unionists for the poor academic record of public education in the Bahamas, the U.S. and elsewhere. In the case of the Bahamas, however, this essay identified one, a decline in the quality of teachers.

New research techniques used in the November 1996 study, the "Cumulative and Residual Effects of Teachers on Future Student Academic Achievement", concluded -

"Students benefiting from regular yearly assignment to more effective teachers have an extreme advantage in terms of attaining higher levels of achievement." In the case of mathematics, for instance, the advantage would raise a student from a "remedial math" to an "accelerated learning" level, a result called "awesome." [4] Furthermore, a series of years with poor teachers resulted in the "near-permanent retardation of academic achievement."

In September 2007, McKinsey & Company studied the primary and secondary education systems in 25 countries and concluded -

"At the primary level, students that are placed with low-performing teachers for several years in a row suffer an educational loss that is largely irreversible…they stand very little chance of recovering the lost years." Whereas students placed with high-performing teachers, progress three times as fast.

"The quality of an education system cannot exceed the quality of its teachers." [5]

How do they do it?

These studies shifted the analytical focus from explaining what went wrong in the poor performing countries to what was being done right in the successful countries. The seminal work was ***How the world's best-performing school systems come out on top*** ("The Study") by McKinsey & Company.

The Study looked in detail at 25 school systems including the ten best that are included in the OECD's Programme for International Assessment (PISA) and concluded -

The more effective systems get more talented people to become teachers, develop them into better instructors, and ensure that they deliver consistently for every child in the system." They -

1. **Recruit from the top-third of each group of graduates from their school system. For example, South Korea recruits from the top 5 percent, Finland the top 10 percent and Singapore and Hong Kong the top 30 percent. In contrast, the United States recruits from the bottom third.**

2. **Have more effective mechanisms for selecting teaching candidates. They are selected before they start teacher training and in most cases after they have already completed a three-year or a four-year undergraduate program.**

3. **Pay starting salaries that are in-line with the starting salaries in other graduate school programs so that strong candidates will view the teaching alternative favorably.**

4. **Operate within a society that values teaching and teachers highly. "In Singapore and South Korea opinion polls show that the general public believes that teachers make a greater contribution to society than any other profession…New teachers in all of the systems studied consistently reported that the status of the profession is one of the most important factors in their decision to become a teacher."**

Reality and Reform

The knowledgeable Bahamian upon reading the above elements will quickly realize the enormity of the task of adopting these features. The present education paradigm must change significantly.

For instance, there must be flexibility in hiring, promoting and separating personnel that does not now exist. Determining merit in teaching means that pay and promotion based on the number teacher training courses taken and years in service becomes a thing of the past. The proposed system includes a merit pay component that relates teacher or principal compensation to the skills acquired by students. Reform also requires a major restructuring of Teacher Education in the College of the Bahamas.

But, the scarce resource in this reform effort ultimately is the supply of outstanding teacher candidates, teachers and principals. Any program that expands too rapidly will outrun the supply and thus inadvertently compromise reform.

These concerns were the reason why the July 2005 Coalition Report proposed a laboratory school that followed the specific format used in the successful 65-school Knowledge Is Power Program (KIPP). [7] It could be a Charter school that would give concerned, lower income parents in the public school system a viable and affordable option for their children.

The bottom line is that the inherent difficulty in implementing successful educational reform is enormous and will require strong national leadership and a supportive public awareness. However, a failure to change condemns the country to lower economic growth and mounting social instability.

References

1. Eric A. Hanushek and Ludger Woessmann, "The Role of School Improvement in Economic Development", National Bureau of Economic Research, Working Paper 12832, nber.com, January 2007.

2. Coalition for Education Reform, *Bahamian Youth: The Untapped Resource*, July 2005, Google Bahamas Employers Confederation.

3. William L Sanders and June C. Rivers, ***Cumulative and Residual Effects of Teachers on future Student Academic Achievement***, University of Tennessee Value-Added Research and Assessment Center, Knoxville, 1996.

4. McKinsey&Company, ***How the world's best-performing school systems come out on top***, September 2007.

5. For Information on the Knowedge Is Power Program (IPP) see Coalition for Education Reform, Appendix C and/or Google "kipp".