

REVIEW OF PUBLIC EDUCATION IN BERMUDA

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THE REVIEW TEAM

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Dr Peter Matthews is Visiting Professor at the Institute of Education, University of London and an international educational consultant. Previously he was a member of Her Majesty's Inspectorate and senior civil service. As Head of Inspection Quality and Development at the Office for Standards in Education (Ofsted), he developed and was responsible for school inspections in England. He has published research in both science and education, taught in schools and higher education, held senior local authority positions, and in 2003 was appointed OBE for his service to education.

Mrs Florence Olajide is an educational consultant. Until recently she was one of Her Majesty's Inspectors of Schools after a varied teaching career in Nigeria and England. Before being appointed to the Inspectorate, she was headteacher of a large and successful primary school in inner London. She has inspected a range of educational institutions including state and independent schools, providers of initial teacher training and local authorities.

Mr Peter Smith was one of Her Majesty's Inspectors of Schools from 1980 to 2004. He taught at school, polytechnic and university level. As HMI he has inspected the full range of educational institutions, including primary and secondary schools, further and higher education, prisons and Local Education Authorities. Peter is now a self employed educational consultant, and works particularly for the University of Minnesota USA supervising student teachers on training placements in other countries. He is a Fellow of the Royal Geographical Society.

Mrs Rhonda Woods-Smith is seconded to the Cabinet Office from the Ministry of Education in Bermuda. Until recently she was the project manager for the Bermuda Education Strategic Team. Previously she was head of the mathematics department and held other posts at the Berkeley Institute.

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LETTER TO THE MINISTER FOR EDUCATION, SPORTS AND RECREATION FROM PROFESSOR DAVID HOPKINS

May 2007

Dear Minister

I am pleased to present our Report of the Review of Public Education in Bermuda which you commissioned in February 2007. The aims of the Review were:

- to evaluate the effectiveness of public education in Bermuda and identify strengths and areas for improvement; and
- to provide evidence for a thorough reform of the public education system using a transparent methodology with very clear recommendations for action that will result in rapid improvement of this sector of government within short time scales.

The Review was undertaken in March 2007 by my team which included three evaluators from England who are former members of Her Majesty's Inspectorate and two Bermudian educators.

This Report presents the findings and recommendations of the Review and the evidence and views on which these are based. The Report includes the main areas on which we were asked to focus:

- · the basics of corporate leadership of education;
- · strategy for education and its implementation;
- support to improve education in schools;
- · support for special educational needs and social inclusion;
- quality of leadership; and
- standards of teaching, learning and achievement.

We appreciate the help we have received from you and the Premier, and the considerable assistance provided by: principals and pre-school administrators and their colleagues; staff of the Ministry of Education; Unions; governing bodies and the many members of business community and the public who provided information and views. There is considerable public interest in the Review and in the Government's intention to reform the public education system in Bermuda. We hope that this report will assist you in this important endeavour.

Yours ever

David

Professor David Hopkins

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INTRODUCTION

1. This Review of Public Education in Bermuda was undertaken in March 2007. After a short preparatory visit, the Review was conducted by a team of six evaluators - four from the UK and two Bermudians – over the course of five days.

Focus of the Review

- 2. This report is structured around the main areas on which we were asked to focus:
 - the basics of corporate leadership of education;
 - strategy for education and its implementation;
 - support to improve education in schools;
 - support for special educational needs and social inclusion;
 - · quality of leadership; and
 - standards of teaching, learning and achievement.

Conduct of the Review

- 3. Direct observation of education taking place in Bermuda was fundamental to the Review process. For this reason, we visited all public primary, middle, secondary and special schools, a sample of pre-schools and Bermuda College. A private school was also visited. With the agreement of the Minister, we used methods developed for the evaluation of local authorities, schools and colleges in England by the Office for Standards in Education (Ofsted) which were adapted to reflect the organisation of public education in Bermuda (Annex A). The process included interviews with key stakeholders, analysis of documentation and performance data and public meetings. The Review was carried out openly, with the support of the Minister, Cabinet and the Premier. We gave several interviews to the media, held three public meetings and opened a well-publicised e-mail address, inviting anyone with views about public education in Bermuda to write in confidence to the Review Team.
- 4. The starting point for the Report is the achievements of students and the quality and effectiveness of their experience as learners. The Report focuses only on issues which we consider to have a direct bearing on educational outcomes and the quality of educational provision. The Review process provided extensive evidence on which to base our findings and recommendations. This Report reflects the shared conclusions of the whole Team.

OVERVIEW

5. Only just over one third of public schools in Bermuda are good or better in terms of their effectiveness. A small amount of outstanding work was seen. In contrast, the great majority of schools are satisfactory at best, and four are inadequate and a cause for serious concern. As a group, the middle schools are the least effective. There are areas of under-performance throughout the school system, which become more evident as students get older. As a result, many do not make the progress they should. The professional leadership of education through the Ministry is inadequate and the Board of Education ineffective.

Public education in Bermuda

- 6. The public education system has four tiers of mainstream schools:
 - Twelve pre-schools, providing for about 50% of four year olds;
 - Eighteen primary schools, for students aged 5 (P1) to 11 years (P6);
 - Five middle schools, for students aged 12 (M1) to 14 years (M3);
 - Two senior secondary schools for students aged 15 (S1) to 18 years (S4).
- 7. There is also provision for profoundly disabled children in a dedicated special school and a withdrawal unit for students of secondary age having emotional and behavioural problems. Bermuda College provides vocational and general education and some access courses to higher education. Bermudian students undertake most higher education in the USA, Canada or the UK.

Origin of the four tier system

8. Before 1997, there was a selective system of public education. In 1981, the Amalgamated Bermuda Union of Teachers (ABUT) Board of Inquiry highlighted the need to change the selective system of education and abolish the secondary selection examination which was administered at the end of primary school. As a result students were either assigned to one of the two 'academic' schools, or to one of the remaining five 'non-academic' schools. The Board of Inquiry recommended that selection should be discontinued and middle schools introduced. The recommendations of the Board of Inquiry were endorsed in 1995 by the Education Planning Team, commissioned by the United Bermuda Party Minister of Education. This Team recommended a four tier system with the introduction of middle schools, followed by the addition of an extra year of schooling at the senior school level. This structural change was enacted in the 1996 Education Act, which legislated for compulsory schooling between the age of five and the age of sixteen years; primary, middle and senior schools, and the appointment of a Board of Education.

Powers and responsibilities

- 9. The Minister for Education has wide powers which include determination of:
 - the curriculum to be followed by schools;
 - criteria for graduation from the school system or for promotion from one level of the school system to the next:
 - the qualifications required for the employment of a teacher in a school;
 - appointments to the Board of Education, the governing body of Bermuda College and other governing bodies, and
 - consent to the appointment of a teacher in an aided school.
- 10. The Board consists of 5 to 11 members as appointed by the Minister for a period of one year. Its remit is not very clear: the 'Minister may consult or take the advice of the Board....the Minister may act in his discretion'. In practice, as discussed later, the Board is largely sidelined and now meets irregularly.
- 11. The Ministry is led by holders of Permanent Secretary and Chief Education Officer posts. Legislation gives each a number or specific functions. Leadership of education is in reality confused; roles are not properly delineated and lack of continuity in education policy stems from frequent changes of both Minister and changes of senior professional and education officers.

Schools

- 12. Schools have neither substantially delegated budgets nor much real autonomy. The governors of aided schools have greater freedoms than in other schools, for example to identify the teachers they wish to appoint, but these structural inequities are unhelpful. Nevertheless schools are well-resourced, with favourable staffing levels and good plant and equipment. The investment in public education is such that it is reported to us that the cost per student of public education considerably exceeds the cost of private schooling. The results suggest that the public education system gives poor value for money.
- 13. We formed a broad assessment of the effectiveness of Bermudian Schools based on performance measures and visits to the schools, generally working in pairs, during which we sampled the quality of lessons and assessed the leadership of the school. Our broad assessment of the overall quality of primary, secondary and senior schools is shown in Figure 1. One senior secondary school and more than half the primary schools are good or better and some demonstrate practice which could usefully be a model for others. The middle schools exhibit limited effectiveness. One senior, one middle and two primary schools are seriously underperforming.

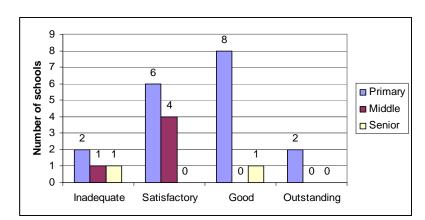


Figure 1. Estimated effectiveness¹ of Bermudian Public Schools

14. Of the institutions not represented above, the pre-schools generally made good provision for four-year-olds and the special school demonstrated outstanding qualities. We did not see enough of the work of the College to form an overall evaluation.

STANDARDS OF ACHIEVEMENT

15. The Review confirms the public perception that standards in Bermudan schools are not as high as they could be. Students in the great majority of pre-schools and primary schools achieve at least satisfactory standards. Students make a slow start and insufficient progress in middle schools and generally achieve standards that are too low by the end of this phase. This reduces the effectiveness of the secondary

¹ Where 'outstanding' indicates excellent quality with no significant weaknesses; 'good' is high quality with few weaknesses; 'satisfactory' indicates acceptable quality with some weaknesses, and 'inadequate' is unacceptable quality

schools and contributes both to the low rates of graduation and to standards which, by the end of schooling, compare unfavourably to private schools in Bermuda and public education in England and the USA.

Graduation standards

- 16. The Bermuda School Certificate denotes graduation in the public school system. It is awarded in the fourth year of senior school (S4) based on the accumulation of 104 points across a range of courses. The level of 104 points, reduced in 2006 from 106 points required previously, is below the level of similar modular systems in the USA. We understand that as of 29 September, 52% of 'eligible seniors' graduated in 2006, although other figures have also been reported in the press². The proportion of those graduating who enter senior secondary school is by implication much lower.
- 17. The Bermuda School Certificate has the advantage of being an attainable qualification that denotes a broad and balanced education and a demonstrable though fairly low level of achievement. It does not compare favourably with the range of qualifications in Bermudian private schools which include International Baccalaureate Certificate and Diploma, International General Certificate of Education and GCE Advanced levels. It is a source of inequity that students in the public education system do not, by and large, have access to such qualifications.
- 18. Graduation rates are calculated and reported inconsistently. Current statistics are confusing. Few stakeholders know how graduation rates are calculated and there is little confidence in the capacity of data analysis officials to do so. Statisticians must ensure that graduation rate calculations of Bermuda students can be measured accurately and against those for other countries.
- 19. Comparison with graduation rates of Black students in the United States both places in context the great disparity with the publicized rates in Bermuda for the majority-black high school population, and highlights the equity issue. Conventionally, the overall graduation rate in the US has been stated at 70% with the graduation rates of Black students around 50%. This would place Bermuda graduation rates in the bottom tier of graduation rates on comparison. Recent (2006) findings report that overall, 80 to 83% of United States students receive their regular high school diplomas. Although about a quarter of black students drop out, about half return to education and it is estimated that 75% of black students in the United States eventually receive a regular high school diploma. We do not know the equivalent Bermudian statistic. There is little data on Bermudian school leavers. Thus it is difficult to assess the 'real' effectiveness of the system in helping students persist in their studies. There is a need systematically to collect data about students' destinations when they leave full-time education at 16, 17, 18 or 19 years and we recommend that this is done in the future.
- 20. It was reported to us that although the College accepts students who have graduated with the Bermudan School Certificate (BSC), a few of these students have very low Grade Point Average (GPA) scores, sometimes as low as 1.0, and the College is under some obligation to accept at this level.

Standards in middle and primary schools

21. The Terra Nova assessment³ was adopted after schools were reorganised in 1997. The assessment purports to measure critical thinking and problem solving skills and utilises a

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² i. "Last year, 38% of the Class of 2006 graduated in June" ii. "In June of 2006, 48% graduated".

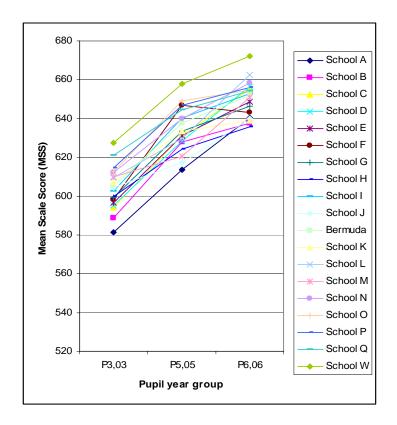
³ A commercial scheme published by CTB/McGraw-Hill.

combination of multiple choice and open response questions. Terra Nova tests are applied every year from P3 to S2. Their use has a number of positive elements, they:

- i. provide year on year measures of school and student performance;
- ii. include Mean Scale Scores which could be used to assess the progress of each student through their school career;
- iii. contain grade level equivalents which provide a means of comparing the standards of Bermudian students schools with USA national norms, and are cited in school improvement plans; and
- iv. could provide value-added measures of school and class effectiveness.
- 22. Terra Nova tests also have some disadvantages. The Ministry curriculum team claim an 80% alignment of the test content with the Bermudian curriculum and standards, but the standards are so general in some subjects that we have some reservations about the level of correlation claimed. The content tested through Terra Nova did not appear to be known by teachers, principals or parents. There are also limitations to what data are shared with schools and the public and delays in their distribution. The Research, Development and Analysis Unit of the Ministry does not undertake the powerful analyses that are possible with the wealth of data available. Proposals adopt reduced Terra Nova tests led to industrial action by principals in 2004, in which year no tests were administered. This was unfortunate for it broke the sequence of results which contained much valuable data. There are few signs that that data —either before or after 2004 have provided a lever for school improvement.
- 23. A central statistic as a measure of educational progress in the United States is the scale score. The Mean Scale Score (MSS) available in current Terra Nova data sets but not currently used to assess student or cohort progress. Scale scores range from 100 to 900 representing content on a continuum from kindergarten to grade 12. Scaled scores adjust the number of correct responses to test items to help describe growth that occurs as a student progresses through the grades. These scores allow comparison of students across test levels so that when they take the Terra Nova again their scores can be directly compared to determine their progress. For example, a student with a scale score of 600 in P3 would be expected to have a higher scale score the next time the Terra Nova was administered. The aggregated scores also provide measures of school effectiveness.
- 24. Figure 2 indicates the aggregated Mean Scale Scores (MSS) of pupils who were in P3 in 2003, tracked on a school-by-school basis through to P6 in 2006. These scores provide an overall indication of the relative progress of students in different schools during this time. Data from 2004 were not available, as stated above. Despite limitations of the data, they can be helpful in pointing both to where school improvement efforts are needed and to where effective practice may be found.
- 25. Students progressed at broadly similar rates from P3 to P5, as indicated by the gradients, with School L students showing greatest progress and School I the least, over the two years in question. Some schools sustained or even accelerated progress from P5 to P6. The school whose students made greatest progress over the full three years concerned was School A. The plot relating to School F is curious, for its spurt from 2003 to 2005 seems to have been followed by regression from P5 to P6 in 2006.
- 26. Figure 2 illustrates how even school level data can be used to raise questions about performance. Perhaps the most important of these relates to why the progress of students in P6 slowed down in about half the primary schools relative to those which sustained or accelerated their rate of progress. This data and other data available to schools should be used, student by student, class by class, subject by subject and teacher by teacher

to track progress, set targets and maximise performance. There is little evidence that this is happening systematically at either school or Ministry level.

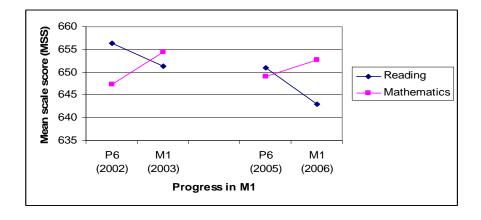
Figure 2. Progress of pupils from P3 (2003) to P6 (2006) in Bermudian Primary Schools



School transfer, P6 to M1

27. Turning to the interface between primary and middle schools, Terra Nova data show that the average reading standard of Bermudian students after one year in the middle school is lower than at the end of the primary school. Figure 3 shows the same effect in both 2002/03 and 2005/06.

Figure 3. Bermudian reading and mathematics scores after one year in the middle school.



28. Pupils are effectively reading about half a grade worse after a year in the middle school. There is some progress in mathematics after transfer, but this is by no more than half a grade, judged from the 2002/03 data.⁴ The data in Table 1 show the substantial drop of Bermudian students in median national percentile in both subjects, showing that relative performance is weaker in both reading and mathematics.

Table 1. Comparative P6 to M1 transfer data, 2002/03 and 2005/06

	Reading			Mathematics		
	Median National Percentile	Grade Mean Equivalent	Mean Scale Score	Median National Percentile	Grade Mean Equivalent	Mean Scale Score
Bermuda P6 (G5) 2002	52.2	6.3	656.4	49.0	5.9	647.4
Bermuda M1 (G6) 2003	41.0	5.6	651.4	41.6	6.3	654.4
Bermuda P6 (G5) 2005	51.0	5.7	651.9	51.5	6.0	649.1
Bermuda M1 (G6) 2006	37.4	-	642.9	37.6	-	652.7

- 29. A number of students leave the public school system after primary schooling. They are likely to include a significant proportion of higher achieving students, and this will have an effect on middle school results. The effect would have been greater in 2002/03, when there were 22.6% fewer students in M1 than the previous year's P6, than in 2005/06 when the reduction was only 13.6%. The lack of progress in M1 cannot be explained entirely on grounds of emigration to private schools, for why does it apply to reading scores and not to mathematics scores? Standards of work seen in some middle schools were not stretching the students; the quality of work especially writing was frequently inadequate, and there was evidence of low expectations of what students should be achieving. **We conclude that there is a serious and general loss of momentum on transfer to middle schools.** This has a number of causes, of which the most significant are:
 - i. Low expectations and lack of challenging teaching in the middle school:
 - ii. Lack of curriculum continuity between each middle school and its partner primary schools;
 - iii. Inappropriate learning support strategies in the upper part of primary schools which results in continued reading dependency to P6 and beyond.

Middle school standards

- 30. Standards by the end of middle school are too low, especially in reading, where even in the highest performing school, the mean grade (highlighted) has only advanced by only one grade over two years (Table 2) and falls short of the expected Grade 8. Grade mean equivalents were not provided with 2006 Terra Nova data.
- 31. The absence of results in 2004 makes it impossible to track the most recent middle school year group over three years. Results at M2 (2005) leading to M3 (2006) show similar rates of progress over the year in the five middle schools but no sign that the performance gap is decreasing.

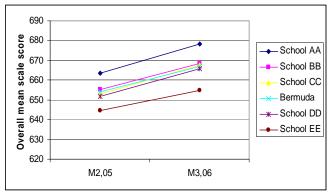
⁴ Regrettably, grade mean equivalent data are not available for the reduced terra Nova tests undertaken in 2006.

Table 2: Reading and mathematics test data for middle schools, 2005 & 2006

Grade 8 students (M3)	Middle scho scores 2005 2003)	ol reading (Grade 6 in mathematics scores 2005 (Grade 6 in 2003)		Reading scores 2006	Maths scores 2006	
	Grade mean equivalent	Median national percentile	Grade mean equivalent	Median national percentile	Median national percentile	Median national percentile
Highest school	7.6 (6.6)	39.5 (48.4)	9.2 (6.4)	59.3 (42.3)	49.3	66.2
Bermuda	7.2 (5.6)	34.9 (41.9)	7.8 (6.3)	34.8 (41.6)	48.3	41.8
Lowest school	6.8 (5.4)	39 (43.0)	7.0 (6.2)	29.2 (36.5)	34.8	31.5

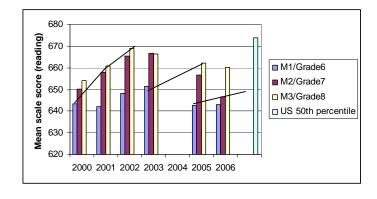
32. Figure 4 suggests that pupils at the end of M3 in one school have mean achievement similar to the mean for the Island in M2; that is to say, they are a year behind the Island average. Students at another school are a year ahead, with the other three schools broadly reflecting the mean progress for students across the island. The particularly low achievements of pupils in one middle school must be a cause for concern.

Figure 4. Overall progress of students in the last year of their middle schools (2005-2006)



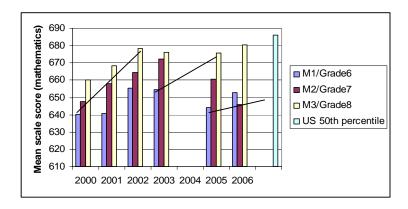
33. Standards by the end of middle schools are below the US 50th percentile in reading, mathematics and other measures. The Terra Nova Test results in reading and mathematics are shown for each of year groups M1, M2 and M3 over successive years in Figure . Standards in M3 have declined since a peak in 2002. It is also noticeable that some year groups made relatively little progress in particular years. The M1 group in 2000 made over twice the progress of the group in 2003 (shown by slanting lines in Figure 5).

Figure 5. Reading standards in middle schools compared with the US average 50th percentile score.



34. The refusal by principals to administer the Terra Nova tests in 2004 deprived the system of a means of identifying the lack of progress of pace of this promising year (the best intake of the last eight years) before they left M2. Mathematics standards (Figure 6) reflect an upward trend in M3, although least progress was again represented by the 2003-2005 cohort. Only marginal progress was made by the 2005 entry from M1 to M2 (sloping line) which may affect the 2007 M3 results.

Figure 6. Progress and standards in mathematics in middle schools compared with the US average 50th percentile score



35. To summarise, students appear to make a reasonable start in primary schools. Standards achieved by P6 are satisfactory but could be improved. In particular, significant numbers of students do not read sufficiently competently and independently to engage with the textual demands of the middle school curriculum. Students make a slow start in M1 or even regress, and middle schools generally under-perform, some seriously. Standards in some of the work seen, even by the end of middle school – for example in the quality of written work – are lower than in some primary schools. Many students therefore enter secondary schools from much too low a starting point. Many are a year or more behind in skills development, and few would be capable of success in a qualification taken elsewhere at 16 years, such as international GCSE. We turn next to the causes of this situation.

THE QUALITY OF TEACHING AND LEARNING

- 36. A number of factors contribute to the widespread under-performance in schools, the most telling of which relate to the quality of teaching and learning. An unacceptably high proportion of teaching about one lesson in four is inadequate and there is little which is outstanding. Much teaching is typified by low expectations and limited pedagogic skill, and little of the class teaching observed was geared to the needs of individual learners. This reflects adversely on school leadership and has implications for the initial training, selection and professional development of teachers in Bermuda and for accountability and performance management.
- 37. We visited all the Bermudian public schools with a view to meeting the principals and seeing education in progress at first hand. Detailed notes were made on well over 100 lessons, from P1 to S4 (together with work seen in four pre-schools) each of which was observed for part of the lesson, and these lessons graded as 'outstanding', 'good', 'satisfactory' or 'inadequate'. In the early part of the week, Team members undertook paired observations to ensure the reliability and consistency of their judgements. Some observations were discarded either because of a mismatch between text and grade or

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because lessons had been observed for too short a time to arrive at a fair judgement. Figure 7 summarises our findings, based on a sample of 100 lessons.

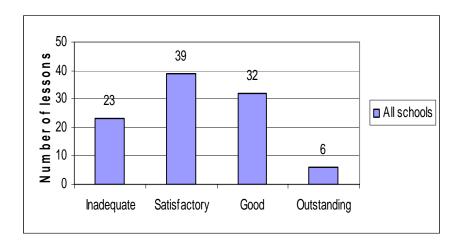


Figure 7. Sample of the quality of 100 lessons in Bermudian public schools

38. An unacceptably high proportion of teaching – nearly one lesson in four - is inadequate and there is little which is outstanding. Much of the teaching was typified by low expectations and limited pedagogic skill. It lacks interest, pace and challenge. Little of the teaching observed was geared to the needs of individual learners, with the exception of programmes which withdraw children from their classes. Many classes contained individuals or small groups who had disengaged and who received little attention as long as they did not attract it. In a small number of lessons, the behaviour of such pupils obstructed the learning of others, but behaviour was seldom a problem in the good lessons seen.

39. The following examples of outstanding work are recorded here to show that such lessons ought to be within the reach of any teacher. The quotes are from the Reviewers' contemporaneous notes:

Example 1: Outstanding lesson; primary P1 class; 14 students working on literacy

Teacher reviews sight vocabulary of 100 common words, with good focus on word family groups and phonemes.

Students are taught to recognise words within words. Their word recognition and reading skills are very good. They read simple repetitive books with expression, responding well to punctuation such as '!' by changing the tone of their voice, and understand who the author and illustrator are. Shared reading gives students good opportunities to practise skills. Students have fun with 'the big book' and ask if they can read the more difficult text the teacher has been reading. Two pupils do this to a very high standard – fluent reading with very good expression.....

Example 2: Outstanding lesson; senior secondary S4 class: 15 students, social studies

Students were making presentations on Bermudian cultural themes. After a prompt start and brief introduction by the teacher which set a receptive tone, students presented on:

a. Bermudian cuisine: high quality Powerpoint presentation with recipes, text, photographs; students tasted samples; sensitive questioning by teacher; other students listened well and were asked to make notes on the quality of the presentation.

- b. Bermudian weddings: very full and encyclopaedic; folding text and photgraphs; analysis of materials, invitations, food, shoes. Presentation ended with an excellent cake cooked for the occasion (took 5½hours to make).
- c. Ceremonial cape: made by a boy, which was highly decorative, including reflectors, with Powerpoint presentation with clips of processions and gombey dancing. Sensitive designs; then external speaker arrived to dicuss this topic.

Room well decorated with recent project work – kites, models etc. An excellent lesson in all respects. The individual presentations showed strong application to the task and were very competent, with Powerpoint, artefacts, photographs and real food. Clear and firm facilitation by the teacher ensured good pace and questioning and involvement of two adult visitors, one a parent.

Example 3: Outstanding lesson; primary P2 mathematics

13 pupils; pupils asked to count coins and identify value. Very high expectations; clear learning objectives which pupils fully understood; excellent good use of rhyme and songs to reinforce the value of each coin; pupils eager to learn and excited.

Very good use of resources (paper coins) to demonstrate place value; clear evidence around the class that pupils were taught objectives. Questioning was differentiated for pupils. One gets upset because she gave the wrong answer; another provides comfort saying 'it's OK to make mistakes.' Teacher reinforces the high standards; pupils can count in units, 5s etc. Rapid progress; appropriate range of techniques, and content related to what people use money for.

40. Inadequate lessons, on the other hand, were represented by features such as:

Example 4. Primary P3 science: 8 students

Science not happening as timetabled on visiting the classroom. Impromptu work started on 'what is weather' which rapidly became loosely focused on seasons instead, without distinguishing the difference. Students corrected teacher's spelling of 'sumer'. Very laboured teaching, apparently unplanned, certainly uninformed and undemanding. Pupils' science journals were mainly coloured-in pictures with a little writing.

Example 5. Middle M2 business studies: 21 students

'Money'- lesson outline on board; Q & A session very noisy; students shouted out without raising hands; settled slowly when nagged and wrote answers instead. T. eventually disciplined student for calling out (lunch time detention). Eagerness of students to talk and respond could have been met by group work and reporting. T. then wrote on board for students to copy; small writing, in green, not visible from the back; two students walk from back of room to read it and are told to sit down. Students sitting in strange positions, right up to the board. Room was IT suite; no use of computers; indifferent display; no students' work. Poorly conceived and managed lesson.

Example 6. Middle M2 special needs withdrawal: 4 students; mathematics

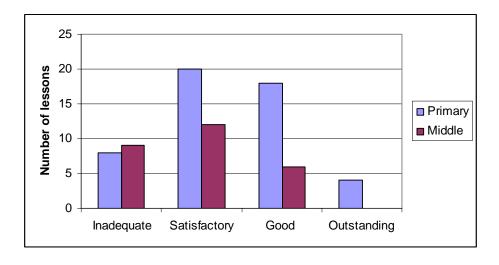
Two adults, one of whom (a cover teacher) does nothing at all. Students work on 'fractions' worksheets, quietly and successfully on what seems relatively easy work: students said so too! Students attend this class every day when mathematics is on and so miss out on the mainstream teaching. Why can't they be supported by this teacher in their normal class? Exercise books suggest that these students are not being challenged at all; they are working on undemanding tasks which they can do easily from worksheets. They ought to be in mainstream classes!

41. The 20 other inadequate lessons included many features that pointed to low expectations by teachers.

Example 7. Features of inadequate lessons

- An M1 class that was crayoning and cutting out (!) photocopied pictures to make a history timeline on a predetermined template;
- An S4 marine biology class that was superficially describing (rather than classifying) a range of marine artefacts, working in small groups, without either clear purpose or the precise observation that sketching would have entailed;
- A P6 class which was 'calculating' areas of simple two-dimensional geometrical shapes by counting the squares on squared paper;
- An M2 social studies class considering early Bermudian visitors, into which bored students drifted in and out, and copied information from the board in poor handwriting into unmarked exercise books.
- 42. The educational process worked best in most of the pre-schools, one senior, one middle and a small number of primary schools, confirmed by more detailed analysis of lessons seen. The analysis for primary and middle schools is shown in Figure 6. No outstanding lessons were seen in middle schools and only six were good. One third of all middle school lessons observed were inadequate. In these lessons, insignificant learning was occurring or likely to occur. The quality of teaching and learning was better in primary schools, where a higher proportion of lessons were good and four were outstanding two of these in P1 classes.
- 43. We are in no doubt that inadequate lessons could and should be virtually eliminated by principals and their deputies through keeping more closely in touch with the quality of day-to-day learning in their classrooms. We are struck by the number of principals who appear to be unapproachably incarcerated in their citadels, rather than managing by walking about, getting involved, modelling excellence in teaching and having the 'open door' policies that would be found in better schools elsewhere.
- 44. Equally, it should be possible to convert most satisfactory teaching to that which is good. Good teaching is what parents expect and it should be the normal benchmark for effective education. The conversion of all inadequate lessons to satisfactory, most satisfactory lessons to good, and many good lessons to outstanding would undoubtedly provide a significant boost for the standards achieved by students.

Figure 8. Quality of a sample of 100 lessons in primary and middle schools



45. At present, on the evidence of our sampling, the majority of lessons that take place in Bermudian schools are not good lessons. Not only the government, but educational professionals need to decide whether this is acceptable. Lessons which are merely 'satisfactory' do not inspire learners; they do not reflect high expectations of what students can achieve; they do not provide an attraction for going to school and they certainly do not reflect the requirement expressed in the job description of every teacher that in order to fulfil their role they must not only be well qualified but 'creative, using a variety of skills, talents and strategies.' For all these reasons, the key to raising standards lies in the quality of teaching. It is the prime task of school leaders to assure this quality.

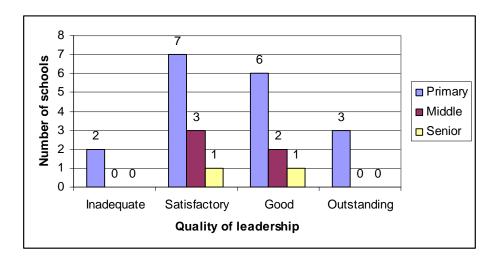
THE QUALITY OF SCHOOL LEADERSHIP

46. School principals are generally efficient in administering their schools. They are less effective in assuring the quality of teaching and learning. They make use of such data as there is and interpret the curriculum framework as best they can. But the benign appraisal and reporting arrangements for teachers are no substitute for close and continuing monitoring and improvement of the quality of teaching and learning in their schools. In many cases, this requires principals to spend more time in classes, evaluating the quality of education and the extent to which all students are learning. There is a culture of low expectations and lacklustre teaching that only principals can address. To do so would have an immediate impact on pupils' progress and behaviour.

School principals

47. The quality of leadership was good or better in half the primary schools, two of the five middle schools and one senior school. The profile of leadership quality is shown in Figure 9 below.

Figure 9. Quality of leadership in primary, middle and senior schools



48. Examples of outstanding leadership include a primary school, portrayed below.

Example 8. Outstanding primary school leadership

-the Principal provides strong and clear leadership in relation to the high expectations the school has of students' achievement. School systems for assessing and tracking the progress students make are effective. The school uses this data effectively to inform lesson planning and to identify and provided appropriate remedial support for students who underachieve. There is a strong, professional, collegiate and collaborative culture among staff. This promotes consistency in the quality of planning, the content of the curriculum and the assessment tools. There is a strong emphasis on meeting the needs of all students and teachers plan lessons which include objectives for different ability groups within their classes. The school examines its data rigorously to ensure that boys and girls do equally well. As a result of the effective leadership and the solid systems in place, the quality of teaching and learning is very good. Teachers use a wide range of teaching strategies, which help students to consolidate and build on what they already know. Many lessons are purposeful, lively and fun. As a result, students enjoy learning engage in activities with high levels of motivation and make good progress.
- 49. School principals are the key to raising students' achievement in Bermuda. The link between school effectiveness and the quality of leadership is exceptionally well established through inspection findings and research in many different Countries. The school principals in Bermuda appear to be capable and qualified professionals. They administer their schools efficiently. They profess to want to see the system improve and are committed to and in some cases passionate about their work. So why is it that so much of the education taking place in many of their schools is mediocre? We postulate a number of reasons.
- 50. The first concerns the strategic vision of the education system. What does it stand for? What are its priorities, goals and targets? What strategies are identified to achieve these? As far as we can make out, schools operate in a strategic vacuum. There is no vision or strategic plan. One promising attempt to develop strategy, BEST, did not survive early infancy. A subsequent exercise which perhaps intended to retrieve this loss. The *'Catching the Vision'* conference in September 2006 lacked follow through and has disappeared without trace. A dropped catch. So principals are working in a rudderless system, lacking purpose and direction.
- 51. The second impediment to leadership is the managerial culture of the education system. Structurally, this appears to identify the principal as an arm of the administration; the local branch manager, ensuring that the strategies, policies and requirements of the centre are applied locally. Requirements are passed down, required information and data passed up the line and each link in the chain is accountable to the next for their performance. It appears this way because our evidence suggests that principals are treated as operatives who are told, rather than consulted. They are employees, not partners in the educational enterprise. They are allocated staff, allowed a small proportion of the total school budget to deploy as they see fit, are restricted in their freedoms, overwhelmed with a range of curriculum and assessment guidance which are often incompatible, denied access to data which would allow them to measure their performance and compare it with others, and ignored when they raise issues that require decisions. Judged in this light, principals are efficient in implementing most of the requirements, although there is a question about the flow of data required by the centre. The prevailing culture, however, has engendered responses ranging from acute frustration in some to withdrawal into their school comfort zones by others.
- 52. None of this excuses a principal from running an effective school. It means that the incentive to do so has to come from the principal's own motivation, idealism and professionalism. This amounts to a moral imperative to ensure that every student gets the best possible deal at school. Some, alas, do not get it at home. The school has to provide the climate, culture and role models as well as the high expectations and effective education that will help students to set their own standards and raise their own sights. The lead must

be taken by the principal, and there are principals in Bermuda who have the drive and determination to change things against the odds.

- 53. There is a pronounced contrast, however, between the better schools and the less effective ones in all phases. A walk around one middle school revealed barren corridors, relieved in one corner by a display of the papers of students who had achieved the best marks in a test, corners frayed and curling, pinned casually to the wall; hardly a celebration of success. The staff 'dressed down' day every Friday on paying a dollar to a charity. The students in contrast were immaculate in school uniform and the contrast was striking. Some of the students' writing (in M3 social studies) was poorer than in the primary school visited earlier, and the learning environment presented by the school suggested complacency and low expectations.
- 54. There is a fundamental question for principals about a vision of best practice. Do they ever see practice in other schools? Most principals are products of the Bermudian system. Have they ever seen a world class school elsewhere? Do they know where the best practice is on the island? There are pockets of excellence; these should be shared and disseminated. Do they form internal consultancies, pairing with other principals to visit their schools and act as critical friends?
- 55. There was little sense of distributed leadership in Bermudian schools, with leadership teams taking collective responsibility for monitoring and improving quality. We met very few deputy principals but would advocate that they need to be able to demonstrate their ability to address issues of quality and coach and develop fellow professionals if they are to fulfil their responsibilities and establish credentials as prospective principals.

CURRICULUM

- 56. The curriculum is inconsistent between schools. This variation becomes a problem when pupils from different schools move up to the next school and lose momentum. This argues for much closer curriculum links between schools or groups of schools. The Bermudian curriculum and the accompanying standards, which are of recent origin, cover a wealth of content but are not sufficiently clear, coherent or demanding to contribute much to the raising of achievement. There is insufficient attention given to the teaching of Bermudian history and a lack of focus on sports and athletics.
- 57. In the 14 to 19 phase, one secondary school operates at a disadvantage to the other in terms of governance, endowment and degree of autonomy. There needs to be a greater spectrum of curriculum provision across the two secondary schools and Bermuda College so as to provide coherent programmes ranging from vocational pathways through to International Baccalaureate or other qualifications of similar standard. A collaborative cross-institutional approach will be necessary to achieve this.
- 58. A number of curriculum-focused education officers support the teaching of subjects in schools. Their impact on the quality of work in schools varies, not only in terms of individual professional effectiveness, but also in relation to time engaged on central tasks such as writing curriculum or assessment materials, opportunities to lead in-service training and whether their subject is regarded as 'core' or not.
- 59. Parents and the community are important partners in the educational process. The Review recognises the contribution to Bermudian education by Trusts, business and other benefactors, and schools' efforts to inform and involve parents, but the effect is uneven.

There are economic and social pressures on some families and adult illiteracy can be detrimental to students' educational progress.

The pre-school curriculum

60. The Bermudian curriculum documents include a pre-school element. Alongside this, the Ministry has supported the move by pre-school administrators to an external programme called the 'creative curriculum'. This is because schools find the latter, a web based programme easy to manage and 'user friendly'. This provides tools for planning and managing the curriculum and for assessing pupils' progress. However its successful implementation is limited by the lack of technology facilities for pre-school personnel. Although the Ministry has purchased laptop computers for each pre-school teacher, it is reported that insufficient consideration was given to how to ensure their security in schools. As a result, the laptops have not been issued to schools.

The school curriculum

- 61. Curriculum guidance documents exist for all the main subjects. We have not audited the whole curriculum in detail, but have considered English, mathematics, social studies and science as a sample. The guidance has been supplemented recently by a set of grade-related standards which have the potential to raise sights and expectations. There is great variation, however, between the layout of performance standards in different subjects, those relating to language being diffuse and repetitive, unlike those in science, which offer more specific guidance, for example, on where the upper assessment limits lie. Standards in some subjects have taken account of those available in the UK and USA, but this has not been done uniformly.
- 62. Schools therefore need to have regard for the curriculum guidance, a complex and not always helpful set of standards and the content of the Terra Nova tests by which their performance is measured. This proliferation of sources of varying quality and consistency is one explanation for the lack of clear curriculum alignment in primary and middle schools. Some general observations are summarised below.

Content

63. Curriculum guidance generally provides detailed information on what should be taught, together with objectives and recommended teaching and assessment strategies. Guidance is also provided on appropriate resources and reference materials for teachers. Most of the content is appropriate for the ages it is designed for; however some objectives for younger pupils require higher order skills (such as critical analysis in English), which far exceed the developmental norms and expectations for pupils of that age. In mathematics, content listed in the performance standards for middle schools was often a repeat of content seen in the primary levels without much differentiation in performance expectations.

Coherence

64. As a whole, the curriculum lacks coherence due to various inconsistencies in content and presentation. The curriculum is constantly under revision and it is often unclear as to which version is being used by educators in different schools. There is no clear numbering system to enable educators to distinguish between previous and new versions. The irregular repetition of skills and content covered in much earlier years is unhelpful. In some instances, the performance standards do not sufficiently align with or match the curriculum objectives, and there are no performance standards for P1, P2, S3 and S4.

Continuity & progression

65. While there is a clear distinction between both the content and skills pupils are expected to master by the ages of 7 and 11 years, in many strands, progression within the intervening years is somewhat obscure. For example, objectives in some English Modules are virtually the same in Primary 5 and Primary 6. In these instances, the difference in the level of challenge between the two years is superficial, and often marked by the addition of, or changes to, one or two objectives. By implication, pupils are required to repeat work that has been covered and the lack of additional challenge leads to standards peaking at lower years. This could explain why in some schools the standard of work seen in Primary 4 exceeded that of Primary 6. It could be argued that curriculum objectives could remain the same but students would be expected to study them at a higher level of challenge or complexity. However, educators have either not been provided with a clear definition of the level of complexity at each year group in most of the guidance documents, or they have done so where it is not appropriate (Example 9). There is a prime need for clear and unambiguous benchmark standards at the end of each stage of education.

Example 9. Aspects of the social studies curriculum

A good deal of work has gone into designing a curriculum for Social Studies which covers a wide range of content, and where possible and appropriate, reflecting a Bermudian perspective. This worthy objective is made less effective by the manner of its presentation, both physically in its format, and in the complexity of its explanation of the different elements. Experienced teachers spoken to by the Review Team expressed their professional concern that they were unsure how to interpret the various documents together.

In essence, the curriculum is too complex in the ways in which the content, the framework, and how these are assessed through the performance standards, are presented. Some of the performance standards are too detailed and prescriptive, with an attempt to suggest the sort of yearly progression over time and within concepts which are hardly identifiable or necessary except over a number of years.

What is needed is a much simpler style of presentation which makes clear the relationship between the various components - objectives, content, standards and assessment - as well as some exemplification of these in real units of work for different ages. The Ministry has put out a series of very important developments in Social Studies without ensuring they are clearly understandable to teachers, or piloting them.

Clarity

66. The manner in which the curriculum is presented has led to the confusing messages listed above. As a result, many principals indicated that they find the documents unwieldy and inaccessible. Some schools are in possession of the Performance Standards Summary document and not the newly revised curriculum documents. This has led to the belief that the performance standards and the curriculum are synonymous. Others have the older curriculum documents. Some schools have undertaken the task of modifying curriculum documents to make them easier to use. In one school, the objectives have been broken down into what needs to be taught each term. Another school has identified the minimum skills and concepts that need to be taught in mathematics and English and have mapped these to the performance standards. Many principals expressed a desire for an 'essential curriculum'. However, perceptions varied on what this term meant and what such a curriculum would look like.

Relevance

67. The steps taken through curriculum documents to link objectives to various aspects of Bermudian life, history and culture are noted later. Educators are employed in the Non-Governmental Organisations including representatives from the arts, history, museums,

newspaper and marine and adventurous activities interests. They expressed a strong wish to contribute and participate more fully in providing educational and sporting experiences for young people in the public system of education, noting that *they have much more frequent contacts with private education institutions*.

68. There is a good deal of strong evidence from educational research that learning experiences outside the classroom and in the 'real world' benefit enormously young people in developing and consolidating their intellectual and social skills. These experiences provide the sort of stimulation, through field studies and visits, which can be developed further through personal writing and other forms of expression in all areas of the curriculum. Such activities interest and motivate young people.

Senior schools and Bermuda College

- 69. The two senior schools are disparate in what is achieved educationally and in the quality of their provision. The traditions of one, including the freedoms of its Aided status and the independence and local accountability of its Board, have given it a clear advantage which it uses effectively. The culture and ethos of the best need to permeate both schools in the senior system. In one school, no lessons were seen whose quality was less than 'good'; in the other, no lesson was seen which was better than 'satisfactory' and half of the small sample observed were 'inadequate'. Poor behaviour, particularly amongst boys, and late and casual attendance in lessons are indicators of un-stimulating and unchallenging lessons, and result in low standards. This school is in urgent need of improvement.
- 70. Although the immediate challenge for this school is to address mediocre or poor teaching, the two senior schools are not functioning on a level playing field. In order to bring about substantial improvements to the less effective school, some similar freedoms may be needed for it as for the other senior school. It may be a short term solution to improving standards to have one Executive Principal for both schools for a period, with daily operations in each undertaken by a senior deputy or 'head of school'. The geography of Hamilton would allow for this arrangement. Again, a short term boost might be given through an interim joint school board or asking the board of the aided school, with the addition of suitable representation from the other, to oversee both schools.
- 71. A serious weakness in the senior system at present is in its curricular provision for wider vocational and technical education; business education is better provided for. The promotion of better technical education, and workforce development for the island as a whole, needs to be done in a coordinated way which also involves Bermuda College. A great deal of valuable and substantial thinking on this topic has already been undertaken through the Arnold Report ('Doing Better in Bermuda' September 2005) and the further recommendations based on this report by the Public Education Sub-Committee (December 2006). These sensible and far reaching proposals need to be progressed at the same time as recommendations from this Review Team. The future economic health of the island is very closely bound up with the workforce development proposals, and the responses of the senior schools and College to the recommendations are fundamental to these.
- 72. Bermuda College is conscious of its responsibilities in providing the necessary support and infrastructure for such developments. It points out the need for coherent timetabling arrangements between the three institutions to enable flexibility in the movement of students. It is willing to experiment and pilot day release arrangements from the schools and to introduce other forms of work based learning. But it also points out the current expense it undertakes in remediating the basic skills of many of its students, whose English, reading and mathematical achievements are still unacceptably low after more than eleven years of full time school-based education. During the period from the beginning of the 2006/07 academic year almost a fifth of the College's enrolments have been on courses at a

'development level', namely bringing students up to the level they need to be at to access other higher level courses needing better than basic skills. This indicates a dreadful waste of resources which have already been allocated and spent on such education earlier.

Curriculum support

73. Education officers are meant to provide support and guidance to schools but they are under a directive to support and monitor programmes not teaching. This has led to significant confusion as to the value of their role within the overall structure of management within schools and within the Ministry. It certainly limits their ability to have a direct impact on the quality of teaching and learning, which are the vehicles for raining standards. Depending on their subject expertise, Education officers in some subjects are stretched beyond capacity while others may be underutilised. Some spend such a high proportion of their time engaged in central tasks that they seldom visit schools. The remit, deployment and management of the education officers need to be reviewed in order that they are enabled to make a better contribution to staff development and to quality assurance within schools.

Professional development

- 74. The professional development priorities which arise from the need to increase pedagogical skills, particularly in the core subjects and IT, are not adequately provided for. in the curriculum is mapped out in considerable detail in a series of documents, devoted to the teaching of subjects in the different types of school.
- 75. Professional development priorities appear often to stem more from perceived corporate priorities, like use of the new management information system, or access to MA courses overseas than to the priorities of effective education identified through school evaluation and needs analysis. Even where this is done, it is not always carried through effectively.
- 76. The second phase of the Literacy Collaborative requires schools to identify a literacy coordinator who after training will take responsibility for coaching other teachers in the school for 50% of their contractual time. However, there is a lack of clarity about arrangements to cover the other 50% of their time and any attendant remuneration. As a result, some principals report a reluctance among teachers to commit to this responsibility without all the necessary information. Interestingly, the quality of students' writing in the lower primary years is generally better than those in upper years, reflecting the lack of progression evident in the curriculum objectives and performance standards. There were few opportunities for students to read out aloud in the lessons observed, where following text read by a teacher or a recorded voice had displaced opportunities for students to read to others. Example 10 shows how writing and reading have become somewhat out of step with each other.

Example 10. Writing at the expense of reading

The Ministry has attempted to raise standards in literacy through the Literacy Collaborative which is a joint venture with Lesley University, Massachusetts. As a result, many schools have restructured the teaching of language skills through the incorporation of writing and reading 'workshops'. However, schools have only been trained on how to implement the writing workshops, not the reading ones.

This lack of coherent training has led to a disparity in the quality of teaching reading and writing skills. Therefore, in most schools, the writing element of language has a stronger focus and higher profile than reading. Students are provided with good opportunities to develop their writing skills, and in particular to be creative in their compositions. Consequently, many report that they feel more confident at writing than reading. This is reflected in the standardised assessment scores for (many) Primary 6 students which show a marked difference in the reading and language scores with the latter being much higher.

Assessment, targeting and student tracking

- 77. There is no system-wide consistency in assessing students' attainment on entry to Primary 1 or in the use of formative assessments thereafter. Nonetheless, most schools carry out formative assessments at least twice a year and attempt to use this information to track students' progress. Schools administer the Terra Nova tests as summative assessments at the end of each year from P3 to S2. These are intended to plot pupils' progress in relation to the Performance Standards. The assessment criteria detailed in the curriculum and some of the 'performance standards' do not establish sufficient progression and there is no discernible difference in the level of challenge expected in some year groups. Schools devise quarterly tests for pupils as part of the system for reporting to parents. Interschool collaboration in the design of these tests would give them greater validity and contribute to curriculum alignment.
- 78. Schools vary as to the degree in which they collect and use assessment data to target priorities for improvement. The quality ranges from those who analyse additional bespoke tests and use these to track students progress, to those who do not have a clear understanding of the relative performance of their students in comparison to other schools. Data centrally collated by the Ministry is not readily available to schools and those who support them.

Curriculum, governance and school alignment

- 79. We are strongly of the view that the primary and middle schools could operate more coherent curriculum policies if they were federated into much tighter partnerships of feeder primary schools associated with each middle school. There would be opportunities for headteachers to chair the federation in rotation, or to appoint an executive headteacher. Education officers could be school-based, located within these clusters for a period of time, to focus on school improvement. A federation could benefit from a joint governing body, with elected representatives of the community, staff and parents and a government nominee, to manage, challenge and support the Federation. In time, the full school budget could be delegated. This would not only facilitate curriculum alignment but place resources in the hands of those who take responsibility for the effectiveness of the schools in the federation. Centralisation has not worked; devolution to communities might.
- 80. Parents and the community are important partners in the educational process. The Review recognises the contribution to Bermudian education by Trusts, business and other benefactors, and schools' efforts to inform and involve parents, but the effect is uneven. Economic and social pressures on some families and adult illiteracy can be detrimental to students' educational progress. Much greater community engagement in school federations would be achieved through direct community involvement in school boards that are given real powers and responsibilities.

EQUALITY AND INCLUSION ISSUES, SPECIAL EDUCATIONAL NEEDS

- 81. Most children having special educational needs are included in mainstream schools. The reading recovery programme can make a crucial contribution early in the child's primary schooling. Learning support arrangements, however, are being used too indiscriminately and extensively to compensate for inadequate teaching of reading in the classroom.
- 82. The prolonged engagement of some children in learning support withdrawal arrangements in primary schools acts against their inclusion and is of limited effectiveness.

The criteria used for assigning learning support are not clear. There is good specialist provision for children with profound or multiple disabilities, but little official recognition of - or provision for - the needs of emotionally disturbed children with serious behaviour difficulties in the primary age range. There is a referral unit for older students with these challenges. Most schools are not easily accessed by wheelchair users.

- 83. It is understood that the driving force behind the restructuring of the school system was to increase the educational opportunity for all Bermudians. Structural changes in buildings, educational philosophy changes brought on by the introduction of the middle school and "large" (by Bermuda standards) senior schools have substantially altered the fabric of the education system. The chorus of public opinion, teacher and principal dissatisfaction, media scrutiny, student disengagement, and leadership ineffectiveness have all grown substantially. It is inescapable that what began as a promise of opportunity for all has resulted in the creation of another set of substantial equity challenges, concerned with:
 - Inclusion and learning support;
 - Relevance and community;
 - Equity data
 - Reading recovery
 - Special educational needs

Inclusion and learning support

- 84. There is systemic failure to assess and address 'true' learning support needs in ways that allow students with special needs and concerns to receive adequate support to achieve and grow. Learning support systems in the schools were widely seen as collection pools for unchecked numbers of Bermudian students particularly Black male students who might be better served in the first place with system-wide good teaching. The learning support 'pipeline' as currently seen entrenches mediocre expectations, inadequate support, and low-level classroom teaching from the first contact at the primary level through the senior schools and college. The approach to learning support is misconceived, and its mismanagement represents a real barrier to the opportunity which restructuring was expected to deliver.
- 85. The learning support service is provided through learning support teachers who are allocated to each school. A strength of the system is the early identification of some students who have learning difficulties or disabilities through the child development services. Such students have access to additional support and resources in pre-school. Other students are referred to the service by class teachers if they fail to meet the 'required standards'. There are no commonly agreed criteria for determining whether a child has learning difficulties or not, or whether they are simply hard to teach. The judgements, which depend on school personnel, vary from school to school and there is doubt as to whether all the children currently being serviced actually require this support. This problem is confounded by the fact that the processes for assessing students' needs do not always involve input from school psychologists.
- 86. The deployment of learning support teachers within schools varies from school to school. For example, some learning support teachers also teach the reading recovery programme so that their time is split between the two roles. Some have dual roles as reading resource teachers who provide additional support to groups of students whose progress in reading is slow in Primaries 3 to 6. Learning support teachers work alongside class teachers in class or by withdrawing students from lessons for focussed group or individual attention.
- 87. Principals and other professionals are generally unhappy about the way the learning support service is managed by the Ministry. They assert that there is a lack of transparency

in the manner in which teachers are allocated to schools and there is a lack of equity in their distribution. Some Hamilton city schools with large numbers of students with social and learning difficulties do not have as many as they require. In other instances, learning support teachers are deployed across several schools. The resulting travel and management implications mean that these schools receive little or no support.

- 88. This year, pre-school administrators have not been provided the details of new students entering the system who have already been identified as requiring learning support as a result of it is reported a Ministry decision not to supply early childhood assessment information. They are therefore unable to plan appropriate transition arrangements in relation to the needs of these students. Parents and education officers confirm that this situation exists, but the reason for this is not clear.
- 89. Some principals feel that learning support teachers are not sufficiently trained to manage the needs of students with complex or severe disabilities or difficulties. It is also clear that class teachers are not adequately trained to meet the needs of pupils with moderate learning difficulties or disabilities. Lesson observations by the review team show that very few class teachers organise appropriate learning tasks for students who receive learning support and there is a tendency to over rely on the learning support teachers. The tendency to withdraw pupils from their main classes as the most prevalent method of support further encourages class teachers to abdicate responsibility for these pupils. Consequently, the overall quality of support that students with learning difficulties or disabilities receive is poor and does not enable them to make good progress. Many such pupils complete their primary and secondary education with the necessary skills to enable them to further their education or enter into the labour market.
- 90. We have considerable concern about aspects of the learning support provision. It appears to be a law unto itself: deploying a considerable teaching resource across schools in a way which is far from transparent; gathering up students on the basis of what appear to be subjective and varying criteria, and continuing in many cases their withdrawal from elements of their curriculum until near or at the end of their time in primary school. The effectiveness of the programme is questionable. The prolonged engagement of some children in learning support withdrawal arrangements in primary schools acts against their inclusion, contributes little to their self esteem, and in some cases passes the challenge on to the middle school rather than solving it. The system needs a root and branch overhaul, dedicated to providing mainly in-class support to children who need it after P2. This needs to be accompanied by intensive in-service training of class teachers in the teaching of reading.

Relevance and Community

91. The second major equity challenge lies in addressing the disconnection between the system and the building of a Bermudian identity. This expectation is captured in other national curricular interests as a concern for *relevance*. The *relevance* standard for evaluating school and system effectiveness is the extent to which system and school leadership, instruction and learning are centred on Bermudian individual and community interests. The curriculum documents attempt wherever possible to link objectives to various aspects of Bermudian life and culture, but students were not strongly engaged in making this connection except in a minority of schools. Schools giving visible attention to awareness of Bermudian heroes, involvement of community in school, strong parental association support and infusions of local concerns in curricular projects appeared to have stronger expectations for students, fewer student behaviour issues, and higher levels of teacher satisfaction. We are also concerned at the lack of focus on sports and athletics⁵, which in many schools and

⁵ The review has been apprised, for example, of a proposal for a 'Scholar-Athlete' programme, which merits further evaluation of feasibility.

systems contribute significantly to individual development as well as promoting a positive school ethos.

92. Many voices from the public, business community and teachers lamented the loss of a sense of "neighbourhood" in and throughout the system. This may in part explain the dissociation in respect of public awareness of curriculum expectations. The more effective schools found ways to preserve a sense of neighbourhood. New schools and restructured school communities may have lost it. Leaders will have to be creative, especially the middle and senior schools, to re-socialize the schools.

Equity Data

- 93. A further challenge for addressing of equity issues throughout the system is the use of data to monitor and assess how students and student groups progress throughout the system. Information and data should be gathered in relation to questions such as the following:
 - i. How well do educators articulate an outcomes-focused definition for equity that school programmes and practitioners should aspire to?
 - ii. How well is the nature of inequity articulated, beyond the labeling of groups?
 - iii. How strong is the emphasis on researched-based instructional factors that contribute to conditions of inequity?
 - iv. How strong is the emphasis on articulating researched-based school and policy factors which limit student achievement?
 - v. Is a robust vision of critical, cultural, equity-focused pedagogy promoted that is tied to curriculum standards?
 - vi. What do practitioners believe about students, their culture and communities, and language and mathematics capabilities?
 - vii. How well has school reform been understood and implemented? What is the resistance to equity ideology?

Reading recovery and other interventions

- 94. The reading recovery programme operates on the principle that all students who fail to reach a certain standard in reading after one year of formal schooling should have access to remedial help. Diagnostics tests are used at the end of Primary 1 to identify students who require additional support, who then access the programme in Primary 2. The programme is therefore used as a first intervention programme for low attaining students.
- 95. There is some disparity in the distribution of Reading Recovery teachers through the school system, which consequently affects pupils' access to the programme. Some schools with large numbers of students requiring support are unable to provide the programme because they do not have a sufficient number of trained teachers. In others, students who do not necessarily need the programme are able to access it due to a surplus of trained teachers.
- 96. There exists also, a system-wide lack of consistency in the collection, analysis and use of data to measure the effectiveness of the programme. Although on average, a quarter of the pupils in Primary 2 are referred to the programme, across schools this varies significantly rising to 50% in some. A disproportionate number of these are boys, who for example represented more that two-thirds of the 2005/2006 cohort. This raises significant questions about the effectiveness of teaching reading in Primary 1 particularly for boys. The large numbers of students being identified as requiring the programme in some schools suggests

that the programme is increasingly being used as a substitute for 'quality first teaching.' The problem of misclassification and remediation extends to the senior school level.

Example 11. The pattern of reading recovery provision

Reading Recovery teachers generally work with two cohorts of four students over the period of one year, starting with the bottom four students then moving on to the next four. Teachers work with each student for 30minutes each day. The majority of pupils on the programme make quick gains, up to an average of 14 reading levels within an 18-week period. Principals appreciate that most students on the programme make good progress. They however express concern that some students regress in later years. This is because teachers are not sufficiently trained to extend students' reading skills, building on the progress made in the Reading Recovery programme.

One school's internal data suggests that only 20% of the students who access the programme stay on course to achieve the expected standards by the end of Primary 6. Internal monitoring data collected by the Ministry shows that when pupils are retested approximately four to six months after they exit the programme, many have made limited or no further progress. In the 2004/2005 cohort, pupils who were retested after this period made no progress at all while the 2005/2006 cohort was marginally better having made one reading level of further progress over the same period.

- 97. In some schools, the reading recovering teachers also provide learning support. Principals feel that these teachers are the most effective as they use their knowledge of how to teach reading more broadly within the schools. However, schools vary in the degree to which they use the Reading Recovery teachers to improve the skills of other staff in the teaching of reading. In some schools, the Reading Recovery teacher's role is limited to working with 8 students per year. In others, especially where they also act as learning support teachers, reading recovery teachers provide other teachers with guidance and support on how to meet the needs of all students.
- 98. Over the eight years since its inception in Bermuda, the programme has had an average success rate of 78%. Various reasons are given for the failure of the programme to meet the needs of the remaining 22% of students, one of which is missed lessons. The success of the programme is heavily reliant on the regular teaching of daily lessons over a specified period of time. During the 2005/2006 academic year, pupils missed 12% of the Reading Recovery sessions. However, only a third of these were attributed to student absence. The remaining were due to teachers' absence or school organisation issues, which prevented lessons from taking place despite the presence of both teachers and pupils. The greatest numbers of lessons missed were due to the latter reason. This suggests that schools do not always consider these lessons as a priority when organising their timetables. Transition and exit arrangements from the programme vary from school to school. Some schools continue to track the progress of students through the school; others do not.
- 99. Overall, a large amount of resources have been used to implement this otherwise successful programme rather inefficiently. System-wide failures include the lack of collaboration between Reading Recovery teachers and class teachers, the lack of systematic data collection and analysis, weak training of class teachers and the poor dissemination of information (including data) to schools. Ministry directives for data collection are not followed through. Where data is collected it lacks consistency or does not include all schools. Poor communication and blurred lines of accountability within the Ministry mean that data is not transfer to or shared with all relevant parties. Schools do not meet the annual goals that the Ministry sets for the programme and there are no apparent systems to hold Principals accountable for the successful implementation of the programme in their schools.

Special educational needs

- 100. Most special education needs are accommodated through the mainstream school system. Reading recovery and the proper use of learning support can provide effectively for many with learning challenges. Students receiving learning support have individual education plans.
- 101. There are opportunities for students to access a range of other support services including physical therapy, speech and language therapy and occupational therapy via the health services. However, access to these services is often interrupted. The main reason is because the personnel providing such services work within the Health Department under different pay and conditions of service from school personnel and are allowed take annual leave during term time.
- 102. In respect of other special educational needs, we observed that most schools are not easily accessed by wheelchair users. There is good specialist provision for children with profound or multiple disabilities, which may have difficulty in future in accommodating the increasing number of children and young people with these challenges. There is little official recognition of or provision for the needs of emotionally disturbed children with serious behaviour difficulties in the primary age range, for which the one primary school has unilaterally made good provision (ACE) from within its resources, for which there is a good case for central support. There is a referral unit for older students with these challenges.
- 103. It is claimed that dyslexic students are not being recognised and helped sufficiently, and schools claim to have students on the autistic spectrum for which more specialist help is needed. There is evidence that some parents of children with special learning needs are having them home-schooled or paying for special education abroad.
- 104. **Gifted and talented children** are unlikely to be fully challenged by most schools owing to the low expectations and lack of personalisation or differentiation of much of the work observed. Proposals to extend the provision for such children are to be welcomed. The government has recently sponsored an initiative which aims to make specialist provision for gifted and talented students. Beyond noting that the rationale and operation of the project have been poorly communicated to schools, we have not evaluated this project in detail.
- 105. We do have however two significant concerns about the current proposals. The first is that, in common with the majority of principals, we would wish to see any gifted and talented programme being focused on providing within-school support rather than taking the identified students out of mainstream provision. We have no reservations about the addition of out-of-school enrichment components of the programme, which appear to be of high quality. Secondly, there appears to be some dispute over the implementation of the programme which has resulted in it not being operational during this school year while the staff are still on the Ministry payroll. Our advice is that whatever dispute is creating this problematic situation is resolved immediately, both to staunch the now quite significant loss of public money and uncertainty.

STRATEGIC AND OPERATIONAL LEADERSHIP

106. The Ministry has lost the trust and confidence of schools and the public. It is a poorly-led and mismanaged organisation, lacking in strategic vision and the skills to realise it. The Ministry exercises much control but little leadership - it is secretive and operates through direction. Schools are overly regimented by the Ministry for

Education on which they are dependent for information, guidance and support. Senior staff have not acted to identify and improve the schools which, on the evidence of the Review, are failing to provide consistently satisfactory education for their students. The Ministry stifles initiatives suggested by schools and its own education officers and is on balance a barrier to educational progress. It has no apparent standards of service, and although the system is awash with resources, they are not always deployed in the most effective way. The Ministry urgently needs a radical overhaul together with the appointment of exceptional leadership and first rate management in order to improve public education.

Strategic leadership: the need for continuity

- 107. We have looked in vain for any evidence of an overall vision for education depicted through clear aims and operationalised through a strategic plan which shows the priorities to be addressed, goals or targets to be achieved and the approach to be taken. Education initiatives can and do stem from cabinet and Ministerial initiatives. These initiatives respond to perceived need but are not necessarily part of a coherent strategic vision.
- 108. There are also statutory bodies that would in other jurisdictions, contribute to the strategic development of the education system. The first of these is the Board of Education, appointed through statute by the Minister to advise the Minister. The Board has included an eminent but changing membership and frequent changes of chair. The trail of minutes over the past year has been punctuated by long intervals (ie most of 2006) in which none of the customary monthly meetings were held. The Board has reconvened in recent months to consider the award of scholarships, only to find that the process had not been administered efficiently. It has shown considerable interest in strategic developments, to be told that these could not be discussed. The Board has received a report of the 'Bermuda initiative' which was scrapped shortly after; its role is no longer clear; and it has been treated with either indifference or disdain by some senior officers in the Ministry.
- 109. There are boards of governors, whose members (unless they are boards of aided schools) are appointed by the Minister. Take, for example, the governance of Bermuda College,
 - ".....whose board is appointed entirely by the Minister. Its current constitution has, remarkably, no place for either faculty members or representatives of the student body. Board membership is for one year, with any changes taking place in January, inconveniently mid way through the academic year. In the past six years there have been six chairs of the College's board."
- 110. This sort of turbulence in membership does not provide the stability and commitment needed nor through the manner of appointments or the diversity of membership to reflect the College's mission. It is apparent that the membership of the Board of Education and Institutional boards is in a state of constant turbulence associated with the 'one year rule' and, it is reported, the effect of frequent changes of Education Minister in recent years which result in new Ministerial appointees.

Strategic initiatives

111. The most promising strategic initiative that has come to the Review Team's attention is the Bermuda Education Strategic Team (BEST), established in 2002. This Ministry of Education project aimed to establish a strategic framework for education to deliver the education mission of the Ministry. By April 2003, a Project Manager had been identified and seven action teams formed, each having wide representation. The Minister of Education and Development of the time directed the BEST action teams to revise the Consensus

Objectives so that they more appropriately reflect the aims and high, attainable standards to which the public school system should be held accountable. The redraft of the Objectives was aspirational but some needed clearer targets.

- i. Student performance in Reading, Language and Mathematics at each year level tested will increase each year as measured by the Terra Nova, a standardised test.
- By 2010, students at every level shall meet the Bermuda standards in the core subjects.
- iii. Students who enter their graduation year in September will graduate in June of that same school year.
- iv. By June 2010, universities and colleges which are attended by 90% of exiting public school students will recognize the Bermuda School Certificate. Post June 2010, additional accrediting bodies will be approached. (Under review)
- 112. In the interim, the teams had also been charged to categorise their action plans according to the themes which resided in all of the action plans. These themes included but were not limited to Literacy, Communication and Managerial Diligence. A summary of the action plans, which would require Cabinet approval, are shown in the box below.
- 113. In autumn 2006, the promising work on the BEST strategic initiative was summarily stopped. In passing, we note that several of the consensus strategies resonate with findings of this review. The vacuum left by the abandonment of BEST was filled briefly by another initiative which brought together school leaders and others in a conference in September 2006 called *'Catching the Vision'*. The idea sounds exciting, but we have been unable to trace any lasting output of this foray into corporate strategic thinking and the Board of Education also is none the wiser.

BEST

1. MARKETING

To update and maintain the MOED's website. (Communication)

2. CLASSROOM INSTRUCTION

To provide a system-wide approach to literacy via the 'Literacy Collaborative' model. (Literacy)

3. STUDENT ACHIEVERS

To provide empirical information and insight on the general demographic landscape of the Learning Support student population in the Bermuda Public School System and the associated resources assigned to meet the needs of the population's diverse needs. (Managerial Diligence)

4. HIGH ACHIEVERS

Implement gifted and talented programmes in all preschool, primary, middle and secondary schools. (Literacy)

5. SYSTEM UNITY

To improve communication at each level of the Bermuda Public School system by appointing an impartial researcher to oversee the process. (Communication)

6. PARTNERSHIPS

To establish international relationships with overseas organizations for the benefit of research partnership models and exchange of dialogue and ideas. (Communication)

7. ACCOUNTABILITY

To reinstate the curriculum/assessment committees. (Communication)
To consolidate the offices of MOED on one central site.(Managerial Diligence)

- 114. We conclude that strategic management has been fragmented owing to a number of factors including: changes of political direction and Ministerial mobility; turbulence in membership of key management or advisory boards; lack of vision, conviction and capability in the professional leadership of the ministry, and fear of losing control. The game is up, for with the eclipse of *'Catching the Vision,'* the Ministry has lost the confidence of those on whom it would depend for realising the vision.
- 115. There are indications that the public education system in Bermuda, especially at post-Primary level, is on the brink of meltdown. The adverse findings of the 1996 independent Curriculum Management Audit largely apply today, and the quality of many parts of the system has declined since then. The findings of subsequent studies and consultancies have, in the main, not been revealed. Radical steps are needed if the government is to establish the sort of purpose, direction and sense or urgency that are needed to reverse the decline.
- 116. This report provides an agenda for change; the challenge is to find a mechanism for implementing it. This is not a job that can be led by the current leadership of the Ministry. It needs experienced and determined executive action with the full backing of the government. Our recommendation to establish an Executive Board charged with implementing these recommendations is pivotal to the chances of success.

Leadership of the Ministry of Education

- 117. Currently, the senior leadership of the Ministry is dysfunctional. There is no discernable strategic leadership. The Ministry does not have a strategic plan for its work over, say, the next three years. It is increasingly distanced from schools, typically not responding to communications that are of considerable importance to this group of clients. It seeks to implement Cabinet or Ministerial initiatives not through brokerage but either by diktat or stealth. It has a cavalier approach to consultation resulting in tense relations with unions. Meetings of standing consultative committees are not called and internal and external communications are poor.
- 118. The senior civil servant is the Permanent Secretary and the education work is headed by a Chief Education Officer. Their relative remits are not entirely clear, since the permanent secretary is clearly playing a strongly hands-on role in terms of at least one current educational initiative. We question whether both posts are needed. The CEO post and several others in the next tier (senior education officers) are filled on a temporary basis. There is no sense of corporate leadership, of there being a senior leadership team approach to running the affairs of the Ministry. The culture at senior levels is properly focused on discharging Cabinet and Ministerial decisions, but this is not balanced by a sense of providing a service to the wider range of clientele notably schools on behalf of government. There is no sense of balance; empathy and common sense appear to be in short supply at the senior levels.
- 119. A major problem with this culture is that it suppresses initiative and constructive criticism alike. Some staff in the Ministry and in schools are afraid to speak up or express independent views. There are perceptions that one's career is in jeopardy if one does not share the prevailing view. Members of the Review team witnessed the overbearing approach of senior Ministry staff at a meeting with all the Island's principals, and the perceptions described above are aired by educators across the system. From the evidence of members of the public, however, fear of speaking up in the Bermudian community may not be restricted to the education system.
- 120. The Ministry exercises much control but little leadership. It makes requirements of schools that consume considerable time for little reward. An example is the approach to

budgeting where each school is required each year to start from scratch, a 'zero-based budget' approach in setting out its bid. This seems unnecessarily bureaucratic when most schools receive historical costs plus an inflation increase most years, whatever case they make for more; most schools have very limited control over their finances; and most of the costs are on central data-bases anyway. Neither schools nor, especially, education officers responsible for curriculum matters can assume that their allocated budgets will stand, for national in-year educational initiatives are funded by slicing budgets mid-year. Such initiatives, it is reported, have to be funded from within the Ministry's spending allocation. There is no provision for carrying across financial years, and it is understood that accrual accounting has not been adopted.

- 121. The system is better resourced than any public education system known to us. Curriculum education officers and many schools consider that resources are not an issue. There may be some issues concerning their deployment, however. Schools are extensively equipped with computers, for example, but most are seldom used and schools claim that many do not function and that there is not the technical support to provide a rapid response.
- 122. The Ministry has a research and data handling facility which presides over contentious assessment arrangements, introducing change with insufficient consultation and using little imagination in the way it supplies data to schools or the information content of that data. Schools had so little confidence in the content or use of the annual 'Terra Nova' assessments in 2004 that they refused to administer them, depriving the system of valuable if somewhat limited performance information. The Ministry appears to have the necessary data to undertake pupil and school-level value added analyses, but has not yet exploited this. A new school management system has been introduced which requires considerable cooperation from schools in entering the required data, such as attendance data. This is not always forthcoming.

Training, recruitment and development of teachers

- The minimum entry requirement to the profession is a first degree and evidence of taking a number of teacher training courses which lead to 'certification'. These courses are provided by a number of overseas colleges in the US or Canada. There is no system of quality assuring these courses and no national benchmarks or competencies underpinning the qualifications required on entry to the profession. Some headteachers believe that the quality of some of these courses is suspect and that the graduates they produce are not well-equipped to teach reading skills. In appointing teachers, priority is given to Bermudians over non-Bermudians. Teachers may be allowed to teach without the required certification provided that this is achieved within the first three years. On appointment to a school, principals are required to take teachers through a clinical supervision process which is underpinned by a set of competencies determined by the Ministry. Ineffective teachers may be dismissed if their performance is not up to par. However, the Ministry has the last word in this determination and there are suggestions that this process lacks rigour. Staff development opportunities are defined and limited by ministerial and trade union directives. Training is often streamed by teacher cadre such that some teachers are unable to access high quality training because of their job description or contract, hence a learning support teacher cannot access courses available to Reading Recovery teachers.
- 124. Headteachers have varying perceptions as to the degree in which they can empower their staff as a learning community. Principals manage the performance of teachers on a 3-year cycle which involves clinical supervision in one year followed by a choice of administrative monitoring or professional growth opportunities in the remaining two. However, there is a lack of rigour in holding established teachers accountable for poor performance, because evidence collated by Education Officers who monitor the effectiveness of the implementation of various programmes by teachers do not necessarily

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feed into the performance reviews. In addition, the judgement of the school supervisors (senior education officers) who carry out periodic observations of weak teachers outweighs that of the principals who carry out regular observations during clinical supervision.

- 125. The performance of principals and pre-school administrators is managed by senior Education Officers. However the procedures used are inconsistent and some, such as pre-school administrators, have not been involved in a performance review exercise for several years. Principals are judged against a set of competencies determined by the Ministry. These are the same each year as they are not customised to each school's specific school improvement priorities. Performance targets tend to be linked to administrative aspects of the principals' work rather than standards and outcomes for students.
- 126. There is little cohesion in all these arrangements, which reflects lack of leadership. If all the school-focused resources of the Ministry were centred on supporting school improvement, the Ministry could become much more effective and valued by schools.

Accountability

- 127. Chains of line management accountability are clear but ineffective. Principals conduct annual reviews of teachers, which are recorded and sent to the Ministry. Principals are in turn accountable to the senior education officers, who are accountable to the Chief Education Officer, who answers to the Permanent Secretary. Such a system only works if it is embedded, applied rigorously and accompanied by setting of objectives and review of performance.
- 128. One of Bermuda's strengths, the cohesion of the Bermudian community, also presents a challenge when people working in the education community know and are often related to each other. Assertions of it being necessary to be Black, Bermudian and from Berkeley to achieve a top job, or that senior posts in the Ministry are filled by patronage, nepotism or cronyism indicate whether justified or not some disenchantment with the system. We have encountered layers of assertion and counter-assertion, but it is not clear who is professionally accountable for the quality of education in Bermuda. During the time most principals have been in post, there have been many changes of Minister, and changes in most senior officer posts in the education Ministry. Professional responsibility for the system has evaporated. The issues of responsibility and accountability must be faced if the system is to move forward.

RECOMMENDATIONS

- 129. Although these findings present a fairly bleak picture of the school system in Bermuda there is one very strong redeeming feature. It is clear that there is a strong potential for improvement amongst the great majority of teachers and principals. Indeed this potential seems also to be linked with a strong desire to improve a desire that has been inhibited by the paternalistic culture that has been engendered by the Ministry of Education.
- 130. For these reasons the Review Team believes that the most appropriate reform model for the Bermudian education system is one that is based on "re-professionalisation" rather than 'restructuring' or some 'market solutions' such as vouchers. Both of these latter approaches have their attractions however. There is no doubt, for example, that the move to the middle schools was a mistake but the Review Team believes that a structural response would only cause more confusion and instability and leave the real issue the low quality of teaching and learning untouched. Similarly a voucher system or something similar would

put more choice and contestability into the system. It would be more efficient and save resource, but it would not address social equity.

- 131. The re-professionalisation reform model being proposed, if implemented well, has a number of advantages:
 - It addresses the system as a whole and will have potentially positive and interactive impact at all levels.
 - It will produce significant improvements in levels of student achievement within a short space of time.
 - As the approach will be sequenced over time it will allow standards to continue to rise into the medium and long term.
 - It will build capacity within the system allowing it to become increasingly selfsustaining and confident.

132. It is not an easy solution, however, for to be effective the 're-professionalisation reform model' requires co-ordinating many 'moving parts' within the system. This will require strong leadership and careful attention to detail particularly in the early phases of the work. There are ten interrelated elements to the reform model all of which need to be acted on over a short time period. The first seven of these recommendations are the most urgent and will bring early gains. Significant progress needs to be made in these areas during the school year 2007/08.

Recommendation 1: Dramatically improve the quality of teaching

Schools need to ensure that every lesson counts, by instituting quality assurance of teaching and learning, led by the principal, to include:

- internal audit of the quality and effectiveness of teaching across the school, with external corroboration or validation;
- systematic monitoring of the progress of every pupil, reviewed regularly;
- annual objective-setting and performance review of everyone in the system;
- identification and appointment of 'excellent' or 'advanced skills' teachers, giving them an outreach developmental function.

Recommendation 2: Move quickly to improve the quality of leadership by principalsThe quality of principal leadership is pivotal to the raising of standards of learning and teaching. The following actions will assist in principal development:

- Introducing performance management, including 360 degree appraisal, by a school improvement adviser and another principal, or a Consultant Leader.
- Appointing consultant leaders from off-Island to support the work of existing Principals as mentors or coaches.
- Developing standards and high quality training opportunities for principals.

Recommendation 3: Radically reform the Ministry of Education

There is a need for:

- an immediate change of senior personnel, with the appointment of a new experienced Chief Education Officer on a short term contract to lead and manage the implementation of the educational reforms and a Permanent Secretary to manage the change process politically;
- a thorough reconfiguration of the Ministry in order to develop a culture that focuses on
 the schools as its clients. This may involve the division of senior team functions into two
 teams, one providing educational and the other administrative support. The educational
 support team should be staffed by school improvement advisers (equivalent to the old
 SEOs) with responsibilities which include specific support for school leadership. Advisers
 for curriculum and assessment will also be needed. Competent data management,

analysis and research provision will be essential to the work of schools and the education team.

This reform should result in a major restructuring of the Ministry with appointments to all posts on the basis of merit, with five year contracts and robust performance management. The performance of the Ministry will be subject to scrutiny by the interim Executive Board.

Recommendation 4: Strengthen the strategic management of the education system We recommend the appointment of an interim Executive Board, to implement the recommendations of this report and to act for the government in reforming the Ministry. The Board could be either a new body or a reconstituted and more powerful Board of Education. Once established, the interim Executive Board should develop a three-year strategic plan encompassing the BEST project and the findings of this Review. The Board would also commission regular external reviews of the quality of implementation of the review and the impact of its policies.

Recommendation 5: Introduce delegation and transparent accountability at all levels. The culture of paternalism and the prevalence of hierarchy are stifling professionalism and innovation within the education system. It is imperative that the system moves rapidly towards increased delegation of resources and responsibility, as well as enhanced school autonomy. This is subject to two conditions: first, that delegation is introduced incrementally as capacity is built; and secondly, that it is balanced by a high degree of transparent accountability. This will include the following actions:

- Establish rigorous standards at P3, P6, M3, S2 and S4 and authentic testing annually for all students at these levels.
- Set targets for student performance at each of these grades.
- Introduce performance management at every level of the education system.
- Review the quality and standards of schools annually.
- Establish a transparent national data system for measuring, recording and analysing student achievement and progress and school performance, together with value-added analyses.
- Introduce a system of annual school reviews supplemented by regular external inspection of the system.

Recommendation 6: Federate secondary and tertiary education, and, as soon a possible, raise the school leaving age

These proposals are designed to address the very real concerns about graduation rates from the senior schools and the lack of coherent vocational provision on the Island.

- Raise the school leaving age to 18 and increase the level of resource for vocational education and training in the two senior schools and Bermuda College.
- Federate the two senior schools, under an Executive Principal for the Federation, with a
 Head of School appointed to lead each school. The Federation would be governed by a
 Board with substantial delegated powers.
- Establish a curriculum consortium between the two senior schools and Bermuda College to:
 - a. allow a sharing of vocational resources
 - b. facilitate the spread of staff expertise for curriculum delivery and training
 - c. enable more able secondary students to have access to Bermuda College courses
 - d. potentially involve the private sector in order to maximise the above benefits for all senior students on the Island:
 - e. develop three flexible streams within the senior schools and the college for:
 - · students with a vocational bent;
 - those who as now graduate at 18 with both the BSC and GCSE; and

 for those more able students who would graduate at 17 with both the BSC and GCSE, and proceed to study for the International Baccalaureate.

Recommendation 7: Respond to concerns about inclusion and behaviour

To equip students with the skills needed for engaging fully with the school curriculum, the weight of learning support in primary schools should focus on helping students with learning difficulties within the classroom rather than through withdrawal. Educational psychologists and specialist teachers should provide more direct help for mainstream schools in providing for students who are hard to teach or have difficulty in learning.

Recommendation 8: Create self-governing Federations around clusters of primary schools and each middle school

This recommendation addresses the need to redress the problems created by the restructuring in 1997 with minimal system wide dislocation. The creation of federated Boards for each Middle School with its feeder Primaries would allow:

- a sequenced approach to devolution with each Board having some powers to hire and fire and control of resources;
- recognition of existing local arrangements;
- rapid alignment of curriculum and progression across the two phases of education;
- establishment of a secure platform of standards of teaching and achievement which
 would provide the basis for further restructuring options in the future, for example: the
 creation of an early childhood development unit for children aged 0 7 and their families;
 moving the curriculum down a year aiming for grade standards a year earlier; and
 considering designated links between middle and senior schools.

Recommendation 9: Align the curriculum both vertically and horizontally

To ensure adequate progression between grades and phases of education and to place learning at the heart of the curriculum process, there needs to be a clear match between standards, curriculum and assessment. In particular, sharpen, clarify and remove duplication for the curriculum standards expected by the end of P2, P4, P6, M3 and S2. Education advisers should work loosely with teachers to ensure progression and alignment.

Recommendation 10: Harness the power of parents, business and the community in the reform effort

Stakeholders should have greater direct involvement in the management of schools (Recommendations 6 and 8) and have greater opportunities to support learning. The Review favours the appointment of boards, filled largely by election, to run schools or federations of schools, building on the current example of aided schools. These school boards hold have greater autonomy in the staffing of their schools and the deployment of resources as well as holding principals responsible for raising standards. Opportunities should be sought to maximise adult contributions to the work of schools, for example, by acting as learning mentors.

Finally

133. The adoption and implementation of these recommendations will result in a rapid raising of standards in Bermudian schools. This is not a text book solution; it is not possible to start with a clean sheet of paper. Some of these interconnected recommendations are akin to trimming the sails of a yacht; others amount to replacing the keel. At present, many schools are coasting and will win no races. These recommendations are informed by the principle of identifying the most effective strategies to impact on student learning with the minimum of disruption to the educational process. This is to ensure that every student in the Island's schools reaches their potential.

ANNEX A: QUALITY CRITERIA

The following criteria⁶ are included in the report at the request of Bermudian educators. It is intended that they provide a useful aid to improvement of the system.

The Ministry: some issues and questions

	rvice anagement	Does service management help to improve the educational outcomes for children and young people?			
Ke	y judgements:	Enquiries			
•	ambition	Is there a strategic plan for education?			
		Does it set out a vision for the future of the public education system?			
		Is it ambitious? Does it specify outcomes and set challenging targets?			
		Was it created in consultation with the main stakeholders?			
		Are there clear participative structures in place?			
		Is their voice heard?			
•	prioritisation	Is there a clear identification of the priorities for action in improving the education system?			
		Is there an action plan which assigns actions, responsibilities, milestones and targets for the next 12 months?			
•	capacity	How consistent is political leadership (through many changes of minister)?			
		How is policy formulated and on what evidence, expertise and advice?			
		What are the relative roles of PS and CEO, and the advantages and disadvantages of having both?			
		What is the expertise and effectiveness of the operational groups in the Ministry?			
		Who is responsible for school standards and what is their strategy for raising them?			
		How effective are the education officers?			
•	performance	What performance objectives do staff have?			
	management	What is the performance management system? How does it recognise and reward high performance?			
		How does it recognise and improve poor performance?			
		Does it operate through the system?			
		Who monitors it?			
		How is the performance of schools assessed?			
		What happens as a result of any assessments?			
		What performance indicators are there for the system, schools, teachers and individual students?			
•	Value for money	Does the public education system provide value for money?			

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 $^{^{6}}$ The following Frameworks are based on those used in England as specified in the contract. The Review Team had regard for these but adapted practice to fit the system in Bermuda.

Quality of lessons

A good lesson will reflect many of these characteristics, and outstanding lesson almost all or all of them.

High pupil engagement and interest (No poor behaviour or misbehaviour managed very well)

Evidence of learning

Challenging work

High expectations by the teacher

Differentiation

Good pace

Clear objectives and learning outcomes

High standards of work

Good structure to lesson

Effective dialogue and questioning

High teacher competence and commitment

Quality of schools and the college

The overall effectiveness if a school or college, which can be summarised as 'How good is the school?' rests on 'How effective and efficient is the provision and related services in meeting the full range of learners' needs, and why?' Overall effectiveness is judged by taking account of all the work of the school (or college) and particularly the aspects shown below.

Key Aspects	Criteria
Achievement and standards: How well do learners achieve?	learners' success in achieving challenging targets, including qualifications and learning goals, with trends over time and any significant variations between groups of learners
	 the standards of learners' work in relation to their learning goals (curriculum standards) learners' progress relative to their prior attainment and
	potential, with any significant variations between groups of learners
	the extent to which learners enjoy their workthe behaviour of learners
	the attendance of learners
Quality of provision How effective are teaching and learning?	 how well teaching promotes learning, addresses the full range of learners' needs and meet course or programme requirements the suitability and rigour of assessment in planning and monitoring learners' progress the identification of, and provision for, additional learning needs the involvement of parents and carers in their children's learning and development
How well do programmes and activities meet the needs and interests of learners?	 the extent to which programmes or activities match learners' aspirations and potential, building on prior attainment and experience how far programmes or the curriculum meet external requirements and are responsive to local circumstances and, where appropriate, the extent to which employers' needs are met the extent to which enrichment activities and/or extended

	services contribute to learners' enjoyment and achievement the extent to which the provision contributes to the learners' capacity to stay safe and healthy.
How well are learners guided and supported?	 the care, advice, guidance and other support provided to safeguard welfare, promote personal development and achieve high standards the quality and accessibility of information, advice and guidance to learners in relation to courses and programmes, and, where applicable, career progression
Leadership and management How effective are leadership and management in raising achievement and supporting all learners?	 the extent to which leadership demonstrates vision, ambition and direction for the school the quality and implementation of strategic and operational planning the ability to develop staff, build teams and relate to stakeholders how effectively performance is monitored and improved through quality assurance and self-assessment how effectively leaders and managers at all levels clearly direct improvement and promote the well-being of learners through high quality education how well equality of opportunity is promoted and discrimination tackled so that all learners achieve their potential the adequacy and suitability of staff, including the effectiveness of processes for recruitment and selection of staff to ensure that learners are well taught and protected the adequacy and suitability of specialist equipment, learning resources and accommodation how effectively and efficiently resources are deployed to achieve value for money the effectiveness with which governors and other supervisory boards discharge their responsibilities.

A grading scale for assessing quality

Grade	Adjective	Broad description
1	Outstanding	Excellent quality with no significant weaknesses
2	Good	High quality with few weaknesses
3	Satisfactory	Acceptable quality with some minor weaknesses
4	Inadequate	Unacceptable quality