

#### POLICY • LEADERSHIP • MANAGEMENT for South African Schools

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#### SM&L

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#### Leadership, Staff Professional Development and Curriculum Management and Develoment: We respond to you requests

In this issue of *SM&L* you will find a number of pieces which we are publishing in response to the results of our *Subscriber Survey*. These include items on Leadership, Staff Professional Development and Curriculum Management and Development. On the issue of Curriculum Management and Development our focus switches from literacy, to numeracy and mathematics and we have included material on effective teaching strategies for numeracy and Mathematics, we have items on the international TIMSS study and we tell you about the work that Tony Ryan principal of Rondebosch Preparatory is doing to promote quality Mathematics instruction at his school. We introduce the issue of Staff Professional Development with an article that includes research findings on the characteristics of effective professional development interventions and we tackle the issue of Leadership with a look at the work of Jim Collins, author of *Built to Last* and *Good to Great* and his sometimes surprising research findings about "good-to-great" companies and the people that lead them.

Also included in this issue is material on the ACE course in Educational Management which Minister Pandor has proposed become a future requirement for appointment as a principal, and a first look at the recently published National Policy Framework for Teacher Education.

Alan Clarke Managing Editor



### **New Hope for teaching**

With the publication of the National Policy Framework for Teacher Education and Development in South Africa, the DoE has for the first time tackled the parlous state of teaching and teacher recruitment and retention in South Africa. What this document has done, and for which its authors are to be commended, is to confront what Jim Collins calls "the brutal reality" of the present situation, which is that there is a shortage of competent and suitably qualified teachers, particularly in certain phases and subject areas; that too few teachers are being recruited into the profession, and that teacher training and on-going professional development at present is of inconsistent and sometimes dubious quality; and that there is a mismatch between what is taught in these programmes and what is required of teachers in the classroom. The policy sets out the DoE's strategies to manage the problem of teacher supply and demand, and

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## Numeracy

As with literacy, a solid foundation in numeracy is critical if children are to succeed at school.

As with literacy, a solid foundation in numeracy is critical if children are to succeed at school. Interestingly, there is far less research-based evidence of practical classroom strategies for improving numeracy and more specifically for Mathematics than there is available on literacy. This is surprising when one considers the high value that is placed on good results in Mathematics, particularly by parents and politicians, because it is seen as a gateway subject to potentially lucrative and high status career fields in business, industry and the health sciences. This importance is perhaps best exemplified by the extralesson industry which feeds on this concern and which persuades parents to spend considerable amounts of money for additional tuition in Mathematics for their children. Although most of the individuals and business who offer these services claim to produce significant improvements, there seems little evidence that they use methods which are any different or more successful than that used by most competent teachers. Improved results, where they are achieved, are more likely to be a consequence in most instances of the additional structured tuition time pupils who attend these classes must devote to Mathematics, than to any superior approach to the teaching of Mathematics. (SM&L would like to know whether our readers agree with this sentiment?)

The guidelines provided on the adjacent page on the teaching of Numeracy, and Mathematics and mathematical concepts, particularly at primary school level, are based on information provided by Teachernet, a website of England's Department for Education and Skills (DfES) and on the *Kumon Method* of teaching Mathematics.

The Kumon Method was developed in 1954 by Toru Kumon, a secondary school teacher in Japan who developed a series of comprehensive worksheets to help his son who was struggling with Mathematics at school. The Kumon method is based on the premise that the skills necessary to understand and master numerical problems are best taught one step at a time and that regular practice was essential if the required skills were to be mastered. Takeshi Kumon, Toru's son, was eventually able to master the complicated calculations of advanced-level Mathematics after spending 30 minutes each day on the worksheets developed by his father. These worksheets were eventually incorporated into a curriculum and are the essence of the Kumon method. It is estimated that over 35 000 pupils study the Kumon method at the more than 500 centres in the UK and that there are Kumon centres in more than 40 countries including South Africa.

What is surprising about the Kumon method is that it is nothing more than the application of sound basic principles of good teaching: • expectations in terms of pupil behaviour and commitment are clearly articulated

• there is clear routine. Pupils are expected to hand in homework and /or completed worksheets for marking on a daily basis. Normally pupils will spend 10 to 20 minutes completing a worksheet before handing it in.

• the value of positive reinforcement and the development of self-esteem is recognised. Every effort is made to improve the self-confidence of pupils. Teachers use diagnostic tests to determine the performance level of every student. Individualised tests are then set which make it possible for pupils to achieve scores of 100%.

#### What Principals can do

As a principal, particularly if you do not have a background in Mathematics or Mathematics teaching, it is not possible for you to monitor the teaching that happens in every Mathematics classroom. What you can do, however, is to make sure that the teachers who teach Mathematics have a good knowledge and understanding of what constitutes good Mathematics teaching. You should also insist that:

 the subject head for Mathematics at your school has a good knowledge and understanding of what constitutes good Mathematics teaching.

 sufficient teaching time is allocated to Mathematics/ Numeracy in the school timetable and that it is used for the teaching of Mathematics/ Numeracy

 all pupils have some Mathematics/ Numeracy teaching every day

• some Mathematics homework is set every day and that it is checked and corrected by the teacher

• at least one member of the Mathematics teaching staff is a member of the Association of Mathematics Teachers of South Africa (AMESA) and that the Mathematics teachers attend AMESA conferences and workshops whenever possible

• pupils at your school participate regularly in at least one of the national or international Mathematics competitions and that their results are used to assess the quality of Mathematics teaching at your school.

• Mathematics teachers visit one another's classes regularly to assess one another's teaching performance and to learn from one another.

### **Numeracy and Mathematics Guidelines**

These guidelines are based on information provided by Teachernet, a website of England's Department for Education and Skills (DfES) and on the *Kumon Method* of teaching Mathematics.

#### Be sensitive to student uncertainty

Teachers should be sensitive to the fact that many students feel uncertainty about their mathematical ability or have a fear of Mathematics. They should therefore avoid making negative, derogatory or belittling comments to those who perform poorly, make mistakes or do not understand an explanation, as this will only serve to further undermine the confidence of those pupils who perform poorly and reinforce their perceptions that Mathematics is difficult and that they will never master it.

#### Know which strategies work best:

Teachers should be aware of and use those Mathematics teaching strategies which have been shown to be most effective.

#### Use a structured teaching style:

Because of the structure nature of Mathematics it is best taught using a structured teaching style. The content needs to be broken down into small manageable steps and pupils must master each step before proceeding to the next. This helps students to build confidence in their ability.

#### Some rote learning is essentail

An element of rote learning is essential if pupils are to master the basics. This applies particularly to things such as multiplication tables, the sequence of mathematical operations (BODMAS), trigonometry ratios etc.

#### **Teach for understanding**

Teaching for understanding using problem-solving techniques is also important if pupils are to master important mathematical concepts.

#### **Correct misconceptions**

Misconceptions need to be corrected. Pupil errors are frequently a consequence of misconceptions. In primary schools this may be the result of their over-generalising a rule that they have been taught and using it in situations where it is not applicable. Misconceptions are best addressed by encouraging pupils to explain how they arrived at their answer. This often requires patient and careful questioning on the part of the teachers as they seek to help the pupils to unravel the thinking processes that lead them to their answer. Dealing with the misconceptions of individual pupils in this way, if this forms part of the teacher's teaching technique, has benefits for all of the pupils in the class not only because the same misconceptions are likely to be shared by more than one member of the class but also because the unravelling process also reinforces the understanding of those who have been successful. Teachers can also help minimise the development of misconceptions by carefully explaining and justifying the steps and processes that they use to solve mathematical problems. The likelihood of pupils developing misconceptions can also be reduced if teachers explicitly teach the exact meaning of mathematical terms when they are first introduced.

#### Teach to establish links and relationships:

Teachers must take care to link new work with concepts and material that have already been taught. The teaching of these links must be explicit so that pupils understand the relationship between different Mathematical concepts. Where possible concepts and materials need to be linked to real-life situations as this helps pupils to relate what may be abstract concepts to concrete applications. For young pupils the use of reallife materials such as bills and accounts and solid objects like boxes and playing cards all help with understanding. In general, the more ways in which a mathematical concept can be represented the better the chance is that pupils will master it. This is particularly important for pupils who may be learning Mathematics through a language which is not their home language.

#### References

http://www.teachernet.gov.uk/teachingandlearning/ subjects/maths/

http://www.kumon.co.za/



#### Continued from page 1

the knowledge and competence of those who teach. They are strategies which, if implemented will have far reaching implications for the teaching profession and for those institutions and organizations involved in the initial training and the ongoing professional development of teachers. The real impact, however, will be felt in the classroom. It is a policy that has the potential to do more to improve the quality of teaching and learning in our nation's schools than all the curriculum reform could ever do. It needs to be supported by all who are involved in education, despite some practical reservations.

### **Numeracy: Good Practice**

Strategies used by Rondebosch Boys' Preparatory School to provide quality instruction in Mathematics for all pupils.

Tony Ryan, principal of Rondebosch Boys' Preparatory School, a traditional boys' primary school in Cape Town's southern suburbs, spent 20 years teaching Mathematics at high schools before his appointment as head of Rondebosch Prep some 10 years ago. He admits to being passionate about the teaching of Mathematics and is committed to ensuring that every pupil receives quality instruction which is appropriate to his ability and from a teacher who has the required qualifications and skills to teach Mathematics at that level. To make this possible the school has, for Grades 4 to 7, moved away from the traditional primary timetable model which sees the class teacher teaching the full compliment of subjects to one that is more like the model used in high schools. In each of these Grades all of the classes which constitute the Grade are blocked on the timetable making it possible for Mathematics to be taught to all pupils in a particular grade at the same time. In addition all Mathematics lessons are also scheduled for the first half of the day to ensure that pupils are still fresh and alert when they tackle Mathematics. Although pupils at the school are normally grouped into four teaching groups (classes) in each grade, in Mathematics they are grouped into 5 groups in the senior classes. To this end the school also has 6 teachers who have the necessary qualifications and skill to teach Mathematics at this level. Because all 5 Mathematics classes meet at the same time it is possible to group the pupils in a number of different ways. The school has chosen to constitute two of the Mathematics classes in terms of ability. One group includes the pupils who are weakest in Mathematics and the other those who strongest mathematically. The remaining pupils are grouped into four similar mixed-ability groups. The number of pupils in the two specialist groups is smaller than the mixed-ability groups making it possible for the teachers of these groups to devote more time and attention to each child. Although this structural arrangement to the school timetable makes it possible for all pupils from Grades 4 - 7 to be taught by the best qualified and most competent Mathematics teachers, it is not the only thing that the school does to ensure that all pupils receive good teaching and a thorough grounding in Mathematics. Other equally important strategies include the following:

• There is an emphasis on mastering basic arithmetical skills. Pupils are taught and given a great deal of practice in basic arithmetical skills. Multiplication tables are learned and Arithmetic/ Mathematics homework is set for all pupils every night. Tony Ryan holds the not always fashionable view that drill is required if pupils are to master the basics.

• The "Kumon" system of using a sequence of small steps to solve problems is another approach that it used, particularly for weaker pupils.



Tony Ryan, principal of RBPS

• Every pupil receives one hour of Arithmetic/ Mathematics teaching every day (5 hours per week) which is slightly more than the 4 hours 48 minutes required by policy.

• Language support is given at the start of every Mathematics lesson to ensure that those pupils whose mother tongue is not the LOLT of the school are minimally disadvantaged. The language support consists of simply explaining and providing alternatives to the words and terms that may be used in the lesson which may have special meanings in the context in which they are used. This need take only a few minutes but can make all the difference to the ability of these pupils to understand what is being taught.

• All pupils, but particularly those who are more Mathematically able, are encouraged to take part in Mathematics competitions. The cost of participation, where there is a cost involved, is built into the school fees. Pupils from the school participate in the following competitions every year (the contact details of each of these organisations is given elsewhere on this page):

- Star International
- Elkanah House World Primary School Maths Contest
- Conquesta
- Living Maths
- Australian Maths Trust
- University of Pretoria
- Amesa Maths
- Pupils who do well at Mathematics are recognised for their achievements whether in a class test or in wider competitions. Teachers are encouraged to send pupils who have performed well

in some Mathematics related activity to the principal for commendation. When warranted, congratulatory letters acknowledging special achievements are signed by the principal and sent home. The wider purposes of this kind of exercise is to make sure that everyone understands that doing well at Mathematics matters at Rondebosch Prep.

• Staff at the school also recognise that emotional stress influences a pupil's ability to learn and to manipulate mathematical concepts, and that self-esteem also has an influence on academic success. Teachers therefore work to create a classroom climate which is positive and supportive, particularly for those who may struggle academically.

Although Mathematics is a focus area for the school, this does not mean that other areas are neglected. Tony recognises the important part that literacy plays in achieving academic success in other learning areas, including Mathematics and the school has a strong focus on literacy and languages. They fully supports the policy requirement of the WCED that every child read for at least 30 minutes each day and 30 minutes is set aside at the start of every day for this reading. Parents have been roped in to assist in this regard and 50 mothers come in once a week to listen to children read. Each mother is assigned a group and on a fine morning you will find the mothers and their reading groups scattered about the school grounds enjoying the story they are currently reading. One interesting innovation is that the decision on which books to purchase as readers for these reading groups and for the classroom libraries is made by the pupils who are asked to read and select books for the following year's reading programme.



An RBPS mother listens to reading More than 50 parent volunteers assist with reading each week

**SM&L** is fully aware of the fact that the vast majority of schools do not have access to the kind of resources that RBPS has. However we believe that observing or reading about examples of innovative, good and best practice stimulate our thinking and encourage us to reflect on the way we do things and how we could do them better given the resources that are at our disposal.

#### MATHS COMPETITIONS IN WHICH RBPS PARTICIPATE

#### Star International Primary & High School 22 Elgin Road 7764 SYBRAND PARK Tel: 021-697-0194 Fax: 021-697-0537 Web: www.starinternational.co.za e-mail: star@wyhorizon.org

Elkanah House World Primary Schools Maths Contest 24 Valderrama Road Sunningdale 7449 TABLE VIEW Tel: 021-554-8600 Fax: 021-554-8600 Web: www.elkanah.co.za e-mail: mail@elkanah.co.za

#### Conquesta

P O Box 99 3640 KLOOF Tel: 031-764-1972 Fax: 031-764-0074 e-mail: conquest@iafrica.com

Living Maths e-mail: cybermail@livingmaths.com

Australian Maths Trust University of Camberra Act 2601 Australia Tel: ++61 26201 5137 Fax: ++61 26201 5052 Web: www.amt.canberra.edu.au e-mail: mail@amt.edu.au

University of Pretoria Fax: 012 667 3504

Amesa Matha P O Box 54 2050 Wits Tel: 011 403 6977 Fax: 011 339 1937 e-mail: membership@amesa.org.za

# TIMSS

The Trends in International Mathematics and Science Study (TIMSS) assesses the performance of students in Mathematics and Science on a regular four year cycle in their 4<sup>th</sup> and 8<sup>th</sup> grades

The TIMSS and PIRLS International Study Centre serves as the international study centre for the International Association for the Evaluation of Educational Achievement Disappointingly we were the worst performing county in both 1999 and in 2001. Five other countries from Africa (Ghana, Botswana, Morocco, Egypt and Tunisia)

(IEA), an independent, international cooperative of national research institutions and governmental research agencies. Amongst other things the IEA aims to provide international benchmarks that may assist policy-makers in identifying the comparative strength and weaknesses of their educational systems, and to provide high-quality data that will increase policy-makers' understanding of key schooland non-school-based factors that influence teaching and learning. The TIMSS (Trends in International Mathematics and Science Study) has been operating since 1995 and assesses the performance of students in Mathematics and Science on a regular four year cycle in their 4<sup>th</sup> and 8<sup>th</sup> grades. The most recent completed study (2003) reported on the results of 51 participating countries and more than 60 the 0007 data callestics. The

#### South Africa withdraws from TIMSS study

Subsequent to the preparation of this article it was reported in the media that South Africa would not be participating in the 2007 TIMSS study. SM&L was disappointed to learn of this decision as we believe that there are a number of important benefits to be gained from participation, some of which are provided in the reports on TIMSS in this issue. The reason offered by education authorities for their decision is that it would allow more time for DoE's Mathematics and Science interventions such as the Dinaledi schools initiative take effect. The DoE will. however, continue with its own internal assessment in Grades 3, 6 and 8, the results of which we have reported on in previous issues of SM&L, and will also participate in assessment undertaken by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ).

We will report on the work of SACMEQ as well as the scores of our pupils in reading and Mathematics in SACMEQ II, the most recent phase testing undertaken by SACMEQ, in the next edition of <u>SM&L</u>. participated in the 2001 study and although all fell below the international Average Scale Score which was the score used to rank the countries, South Africa preformed the least well of the six. This despite the fact that South Africa's Human Development Index, a measure of national development, was the second highest of the African counties. The positive that we can take out of these results is that we are at least participating as a nation in studies of this kind. The results provide all those involved in education in this country and particularly the country's political leaders and senior DoE officials with clear international benchmarks for our education system.

For South Africa the results are 264 and 0.684 while Indonesia which has a HDI which most closely matches

that of South Africa has an Average Scale Score of 411.

What may be of interest and use to schools with strong tradition of good Mathematics teaching and good results are the 2003 International Benchmarks of Mathematics Achievement which the study has articulated.

For each grade there are four benchmarks:

- Advanced International Benchmark (625)
- High International Benchmark (550)
- Intermediate International Benchmark (475)
- And Low International Benchmark (400)

The descripto for the Advanced International Benchmark is given on the adjacent page as an example of these.

More information can be obtained from the TIMSS website http://timss.bc.edu/index.html

countries are preparing for the 2007 data collection. The
PIRLS (Progress in International Reading Literacy Study)
measures reading achievement of grade 4 students on a
five-year cycle. The first data was collected from 41
countries in 2001 and results from the data collected in
2006 will be published in December this year (2007).
South Africa has not yet participated in the PIRLS study
but participated in the TIMSS study in 1999 and in 2003.

Some interesting facts from the 2001 study of Grade 8s
International Average score is 467

Top five countries Development Index	with	scores	and	Human
Singapore	605	0.	884	
Korea (Republic)	589	0.	879	
Hong Kong	586	0.	889	
Chinese (Taipei)	585	-	(not p	rovided)
Japan	570	0.	932	

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### TIMSS trend data

Besides collecting data to assess the Mathematics and Science achievements of pupils from the participating countries, the TIMSS survey also uses questionnaires to collect related data from the pupils, teachers and principals of participating schools. This data provides additional interesting and valuable informative about the relationship between various socio-economic factors and achievement in the tests. Trends noted in the report on the 2003 study include the following:

• For both the 8<sup>th</sup> grade and the 4<sup>th</sup> grade there was negligible gender difference in results in many countries although there were some countries where girls outperformed boys and others where boys outperformed girls.

• Higher levels of parents' education were associated with higher student achievement in most countries

• Pupils expecting to finish university had substantially greater average mathematics achievement than those who did not.

• Pupils from homes where the language of the test was always or almost always spoken had higher achievement than those who spoke it less.

• There is a clear cut relationship across all countries between the number of books in the home and mathematics achievement

• Mathematics achievement was positively related to computer usage particularly in the 8<sup>th</sup> grade with average highest achievement highest among students reporting using computers at home and at school. The next highest achievement was by pupils who used computers at home but not at school, which was higher than those who used computers at school but not at home.

• On average across all countries pupils were taught by teachers with 16 years of experience and on average 76% of eighth-grade pupils and 65% of fourth-grade pupils were taught by teachers with at least a university degree. 70% of eighth-grade pupils had mathematics teachers with a mathematics major. More than 80% of pupils were taught by teachers who had at least some professional development training in Mathematics.

These trends help explain why South Africa performed so poorly in the TIMSS study and also provide pointers about what we need to do to improve the quality of Mathematics teaching in this country. These include:

• the importance to addressing the language issue so as to minimise the obstacles that pupils face who are forced to learn through a language that is not their mother tongue, particularly in their early years of schooling;

• strategies to improve the academic qualifications and professional training of teachers who teach Mathematics and to ensure that sufficient new recruits enter the teaching profession with the academic and professional training that they need to teach Mathematics. It is a big ask but is the only long-term solution to a problem which has very significant implications for the future economic development of our nation.

#### **TIMSS International Benchmarks**

Some comparative results showing the % of pupils from selected countries who achieve at or above these benchmarks

Grade 8					
Country	AIB	HIB	IIB	LIB	
Singapore	44	77	93	99	
Australia	7	29	65	90	
Internat Avg	7	23	49	74	
South Africa	0	2	6	10	
Morocco	0	1	10	42	
Grade 4					
Singapore	38	73	91	97	
Int Avg	9	33	63	82	
Australia	5	26	64	86	
Morocco	0	1	8	29	
South Africa did not participate					

#### TIMSS Advanced International Benchmark

#### Grade 4 Advanced International Benchmark (625)

Students can apply their understanding and knowledge in a wide variety of relatively complex situations. They demonstrate developing understanding of fractions and decimals and the relationship between them. They can select appropriate information to solve multi-step word problems involving proportions. They can formulate or select a rule for a relationship. They show understanding of area and can use measurement concepts to solve a variety of problems. They show some understanding of rotation. They organise, interpret, and represent data to solve problems.

#### Grade 8 Advanced International Benchmark (625)

Students can organize information, make generalizations, solve non-routine problems and draw and justify conclusions from data. They can compute percent change and apply their knowledge of numeric and algebraic concepts and relationships to solve problems. Students can solve simultaneous linear equations and model simple situations algebraicly. They can apply their knowledge of measurement and geometry in complex problem situations. They can interpret data from a variety of tables and graphs, including interpolation and extrapolation.

# **Professional development**

The ongoing professional development of staff is a critical element of school success, particularly as it relates to the academic achievement of pupils

In introducing the introduction of the Integrated Quality Management System (IQMS) into schools the DoE is attempting, in part, to ensure that the professional development needs of teachers and school are identified and that steps are taken at school and district level to ensure that support and training is provided to address these needs. However, it is a rather complex and bureaucratic system and its processes are bedevilled by the fact that teachers are rated as part of the process and that this rating is linked to pay progression. If principals and others involved in the schools leadership structures really want to create an ethic of professional development that is embedded in the school's culture, they need to take responsibility for the staff's professional development needs and not leave it to district officials who are by and large ill-equipped and ignorant of the school's professional development needs.

The Centre for Comprehensive School Reform and Improvement devoted its February 2006 Newsletter to the issue of Professional Development and particularly to examining the characteristics of high-quality professional development and provides suggestions for improving the impact and effectiveness of professional development. It lists 6 characteristics of effective teacher development strategies that have been identified from a synthesis of professional development literature. The findings are that high quality teacher development is:

• informed by research on teaching and learning and provides a strong foundation in subject content and method of teaching

• integrated with district goals to improve education, guided by a coherent long-term plan, and driven by disaggregated data on student outcomes

• designed in response to teacher-identified needs and utilises collaborative problem solving in which colleagues assist one another by discussing dilemmas and challenges

• primarily school-based, provides sufficient time and other resources, and enables teachers to work with colleagues in their school building

• continuous and ongoing, incorporates principles of adult learning, and provides follow-up support for further learning

• evaluated ultimately on the basis of its impact on teacher effectiveness and student learning.

There are a number of important issues in relation to effective professional development programmes that are highlighted here.

1 The professional development programmes should be primarily school-based. That is they should be

managed and driven by the school's own management structures and should take place on the school site. Offsite professional development programmes using department officials and/or educational consultants do have their place, but seldom have the impact of on-going site based programmes. The failure of off-site professional development programmes to influence teacher behaviour is largely due to the absence of follow-up, support or encouragement for teachers as they attempt to implemented the new approaches. Without support and in the face of the day-to-day challenges of the classroom teachers simply fallback on old habits.

2 Professional development programmes should be designed not only to meet teacher identified needs but also in such a way as to encourage teachers to work collaboratively in solving problems and in developing new and appropriate approaches which are suited to the specific conditions pertaining to the school. What works best is not a one size fits all approach, which is the approach adopted out of logistical necessity by the DoE and PEDs, but rather an approach which involves teachers in the process of identifying their own professional needs based on a review and analysis of the needs of the students that they teach. The advantage of this approach is that it encourages staff ownership of the process, builds commitment to new approaches to teaching and learning which may be developed and encourages collaboration and collegiality amongst members of staff.

3 If schools are to become true "learning organisations" there is a need for staff to keep abreast of current educational trends and research findings. This does not mean that the schools need to follow blindly or implement each new passing educational fad. Far from it. It does, however, mean that principals and teachers need to reflect on what they are doing and to assess and evaluate new approaches to determine whether they have any merit and whether they include material which can be incorporated into the school and/or teacher's arsenal of teaching tools and strategies. In the end, however, the focus needs to be on subject content and teaching method. The importance of a focus on subject content and teaching method is summarised by Harvey Daniels in a presentation entitled The Missing link in School Reform: Professional Development in which he makes the statement: "Too many professional development programmes are generic, promising to raise achievement by addressing diffuse issues such as thinking skills or classroom management. However, the most effective programs put content at the centre, focussing professional development squarely in the curriculum: on math, or science, or writing, social studies, or reading. Broader concerns such as student thinking skills or classroom

management then are quite naturally covered in the context of content learning, not vice versa."

A school's professional development programme should be part of a carefully thought out long-term plan based on identified needs. Those responsible for developing the programme need to prepare a programme for the full school year and ideally this annual programme should be based on the schools long-term goals. As a start there needs to be a decision by the school's management team about time allocation for staff professional development so that this time can be built into the year plan. This is to ensure that staff are given good warning about the professional development meetings that they will be expected to attend outside of school hours and to ensure that these times are not lost to other activities. This long-term planning also makes it easier to budget for and justify the spending of school funds for staff professional development.

The ongoing training and professional development of staff is critical to the long-term success of any organisation, including schools. It represent an important investment in staff, the costliest resource of most organisations, and signals to them that they are valued

#### New Professional Qualification for Principals

In a media statement following the Council of Ministers' first meeting of 2007 it was noted that the DoE has been engaged in a process of "professionalizing school leadership" as part of its drive to improve the quality of education. The statement goes on to say that the "ACE (School Leadership) is an entry-level qualification for principalship" and that five higher education institutions have registered their courses through the DoE and the Council for Higher Education (CHE)

It would appear from this statement that the minister and her senior officials are keen to ensure that those who lead our public schools have a formal qualification designed to equip them with the knowledge and skills they will need to meet their obligations as principals. This is in line with international practice and goes hand in hand with the move over the past decade to the sitebased management of schools.

The formal title of the qualification is Advanced Certificate: Education (School Management and Leadership). The course is conceived as a form of continuing professional education designed to either equip educators for the position they currently occupy or to enable them to move into an education management career path. It aims to develop both applied school leadership and management competence, and to set standards for practice-based assessment.

SM&L will bring you more information on the ACE couse in future issues.

and that their contribution matters. On-going professional development also helps establish a tradition and culture of teaching and learning within the school community which is so important if pupils are to fulfil their academic potential.

In future issues we will provide practical suggestions and further ideas for staff professional development programmes including an example of how to conduct a needs analysis to identify staff needs and how to use the results of the needs analyses to develop a professional development programme which is tailor-maid for your staff.

#### References

The Center for Comprehensive School Reform and Improvement is funded through the U.S. Department of Education in Washington, D.C and is administered by Learning Point Associates in partnership with the Southwest Educational Development Laboratory (SEDL) and WestEd.

It's web address is www.centreforcsri.org

#### Policy on Supply and Demand of Teachers

#### Continued from page 12

• There is a need to create conditions that will ensure the retention of teachers, especially those with experience and scarce skills.

#### **Points For CPTD**

Each teacher registered with SACE will be required to complete sufficient approved professional development [PD] to earn a specified number of PD points over a three year cycle. At the moment the rewards attached to achieving this are described in the policy document as being intrinsically professional and placing the successful teachers in a better position for promotion and performance recognition.

This system will make huge demands on SACE.

Approved professional activities carrying PD points will be available as:

- School led programmes
- Employer led programmes
- Qualification programmes
- Other programmes [NGOs, etc]
- self-chosen activities.

#### Comment

The new policy contains much-needed direction in what has becoming an increasingly confused area of education. Whether it will be able to impact on existing and predicted shortages and the esteem of the profession remains to be seen. The envisaged system will also create enormous demands for sound data systems and for solid administration. Existing evidence in these areas is not encouraging.

## Leadership

Jim Collins author of *Good to Great* and co-author of *Built to Last,* two excellent books on leadership and management, identifies what he calls "Level 5 leadership" as a critical component of companies that have been able to sustain outstanding performance over time. Level 5 leaders sit at the top a five level hierarchical model of leadership competencies that he has devised and possess the skills of all five levels.

Level 5: Executive: Builds enduring greatness through a paradoxical combination of personal humility plus professional will

Level 4: Effective leader: Catalyses commitment to and vigorous pursuit of a clear and compelling vision, stimulates the group to high performance standards

Level 3: Competent Manager: Organises people and resources toward the effective and efficient pursuit of predetermined objectives

Level 2: Contributing Team Member: Contributes to the achievement of group objectives; works effectively with others in a group setting.

Level 1: Highly Capable Individual: Makes productive contributions through talent, knowledge, skills and good work habits.

What is interesting and in many ways runs counter to common perceptions about the attributes of outstanding leaders is his description of the characteristics displayed by these leaders. Collins is particularly dismissive of the value of charisma, maintaining that charismatic leaders tend to have huge egos which they are unable to suppress and as a consequence are more interested in their own achievements than that of their organisation. The best leaders, he maintains, demonstrate two rather different characteristics - deep personal humility and an intense professional will. These leaders manifest their personal humility by routinely crediting others, external factors and good luck for the success of their companies. When things go badly however, they blame themselves. They rely on inspiring standards not their personal charisma to motivate others. Their steely will relates to their determination to produce outstanding results. They are utterly intolerant of mediocrity and unwavering in their determination to do whatever is necessary to produce outstanding results. They also look to select the best successor they can find because of their resolve to see that their company is even more successful in the future.

In an article published in the Harvard Business Revue Collins summarises the characteristics of level five leadership under the heading "The Yin and Yang of Level 5"

#### The Yin and Yang of Level 5

#### Personal Humility

• Demonstrates a compelling modesty, shunning public adulation; never boastful.

• Acts with quiet, calm determination; relies principally on inspired standards, not inspiring charisma to motivate.

• Channels ambition into company, not self; sets up successors for even more greatness in the next generation.

• Looks in the mirror, not out the window, to apportion responsibility for poor results, never blaming other people, external factors, or bad luck.

#### Professional Will

• Creates superb results, a clear catalyst in the transition from good to great.

• Demonstrates an unwavering resolve to do whatever must be done to produce the best long-term results, no matter how difficult.

• Sets the standard of building an enduring great company; will settle for nothing less.

• Looks out the window, not in the mirror, to apportion credit for the success of the company – to other people, external factors and good luck.

It is certainly a refreshing look at leadership principles and should provide anyone who occupies a leadership position with something to reflect on. One could simply dismiss his model as some new fad from a leadership guru out to make some money, were it not for the fact that the findings are derived from research not on what makes great business leaders but rather on what made great companies. The companies Collins and his researches studied were selected not only because they were good companies, but because they were good companies that became "great" in terms of their performance relative to their competitors, for a sustained period of at least fifteen years, following a major transition. Collins research showed that one of the differentiating factors was the leadership qualities of the companies CEO and the leadership characteristics of these CEOs had in common and which distinguished them from their peers were the two that he has identified personal humility and professional will.

In addition to the qualities of their leaders, Collins identified 6 other key findings that distinguished these

companies, which were the best, from those that were merely good. These are the practices and approaches which are common to the "great" companies and which were identified as being the drivers of their success.

#### First who

Surprisingly to Collins and his team the good-to-great leaders, as he describes them, started not with vision or strategy but with people. As he puts it "they got the right people on the bus, moved the wrong people off it, ushered the right people into right seats – and then figured out where to drive it." Two things are worth noting here. Firstly the emphasis on people and more importantly not just any people. Your need to have the people who are right for your organisation. Secondly, the importance of deploying people appropriately so that there is a good match between their competencies and the job that they are required to do.

#### Stockdale Paradox

Stockdale was an American Admiral who survived 7 years in a Vietcong POW camp by holding on to two paradoxical beliefs – life could not be worse that it was at the moment, and life would be better in the future. Success derives from an ability to face the truth of your current position no matter how unpleasant or difficult it may appear to be while remaining undaunted in your faith that you will succeed in the end and achieve your goals no matter how distant they may seem. Once again there are good leadership lessons here. As a leader and as an organization one must not play down on diminish you face now matter how insurmountable they appear to be. You cannot make them less and in minimising the challenge they pose you undermine your own resolve and the resources you may need to overcome them.

#### Buildup-Breakthrough Flywheel

Success, in terms of extra-ordinary long-term achievement does not come from a single event or moment of brilliance. Neither does it come from radical change programmes or new fads rather it comes from persistent relentless effort in the chosen direction. Collins describes it as like pushing a heavy flywheel on and on in one direction until it finally builds up enough momentum to break free from the restraining forces that have kept it from achieving greatness. It is about hard work, it is about sustained effort over time and it is about a unity of purpose. It doesn't come easy and there are no quick fixes.

#### The Hedgehog Concept

This is based on a famous essay by philosopher Isaiah Berlin who describes two approaches to life and thought, one he called the fox approach and the other the hedgehog approach. The fox knows a little about many things and the hedgehog knows only one big thing. The fox is complex and the hedgehog is simple. And according to Collins the hedgehog always wins. It wins, he says, because of three intersecting circles or concepts – a determination to the best in one area, an understanding of how its economics works best, and an understanding of what ignites the passion of its people. Anything that does not form part of these circles is eliminated. For schools it is about priorities and focus on the needs of the pupils.

#### **Technology Accelerators**

Good-to-great companies avoided jumping on the technological bandwagon. Instead they were pioneers in the development and use of carefully selected technologies which was directly linked to their hedgehog concepts. They chose things which helped them deliver their goals, nothing else. Once again there are lessons for schools and principals. Simply having computers and other technology has no value if you are not absolutely clear about the benefits that will derive from it. If it is not going to produce measurable improvement what is its value?

#### A culture of discipline

In their transformation from good-to-great these outstanding companies consistently displayed three forms of discipline: disciplined people, disciplined thought, and disciplined action. The value of discipline of this kind is that where it is present there is no need for hierarchy or bureaucracy or excessive controls all of which stultify initiative, dampen creativity and limit the capacity of people and organizations to be the best that they can be. How good could our schools be if we could achieve just this?

More recently (2006), Collins has published a monograph to accompany Good to Great with the title Why business thinking is not the answer: Good to Great and the Social Sector is which he explains why he recommends that "we must reject the idea – well-intentioned, but dead wrong – that the primary path to greatness in the social sectors is to become "more like business"." We will bring your more about this interesting book and its thoughts on the social sector, which includes public education, in the next edition of SM&L.

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# **Policy Update**

In this month's Policy Update we comment on The National Policy Framework for Teacher Education and Development in South Africa

### The National Policy Framework For Teacher Education And Development In South Africa

This much-awaited policy was published as national policy on 26 April 2007 by Minister Pandor in Government Gazette Number 29832. The policy is available on the website of the DoE.

#### Announcement

In the media statement announcing the release of the policy Minister Pandor said, amongst other things, the following:

The Policy Framework will bring clarity and coherence to the complex matrix of teacher education and development activities so that teacher quality can be dramatically enhanced in the coming years.

It makes provision for initial professional education for teachers and continuing professional teacher development. It clearly depicts a move towards an integrated model of teacher training in our institutions.

The continuing professional development system will offer challenging opportunities for teachers to improve their professional abilities and raise learning standards in our classrooms. The system makes provision for the implementation of a point system whereby teachers will be able to take responsibility for their own professional development.

This new professional development points system is consistent with practices in many other professions, such as health and engineering, here and abroad.

The professional development of teachers enables teachers to develop further expertise in subject content, teaching strategies, uses of technologies, and other essential elements in teaching to high standards.

The professional development of teachers is evaluated ultimately on the basis of its impact on teacher effectiveness and student learning.

#### Aims

The aims of the policy document are to ensure that:

• Teachers are properly equipped to undertake their essential and demanding tasks

• Teachers are able continually to enhance their professional competence and performance

• Appropriately qualified teachers fill all vacancies in all schools and that there is a dynamic balance between demand and supply of teachers

• There is a community of competent teachers dedicated to providing education of high quality, with high levels of performance as well as ethical and professional standards of conduct

• Teachers are deservedly held in high regard by the people of South Africa.

#### **Two Complementary Sub-Systems**

Unsurprisingly, the policy distinguishes between two types of complementary training, as follows:

Initial Professional Education of Teachers [IPET]

• Continuing Professional Teacher Development [CPTD]

While IPET is seen as very much a state function, great emphasis is placed upon the role of the teaching profession and SACE in the on-going, up-dated and continuing professionalisation of teachers. The point is made that it is the responsibility of all employers of teachers to make sure that they are competent and equipped to deliver on their responsibilities. This has implications for School Governing Bodies.

#### Supply and Demand of Teachers

The policy accommodates the following impacts of supply and demand studies in South Africa:

• The number of teachers being prepared in SA universities is insufficient to meet the demand for new teachers over time

• Decisive measures are required to increase the numbers of young people entering ITE and making themselves available for employment as teachers after graduation

• There is an ongoing need for reliable, disaggregated information on teacher demand, new teacher supply and the pool of experienced teachers who are willing and qualified to re-enter teaching

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