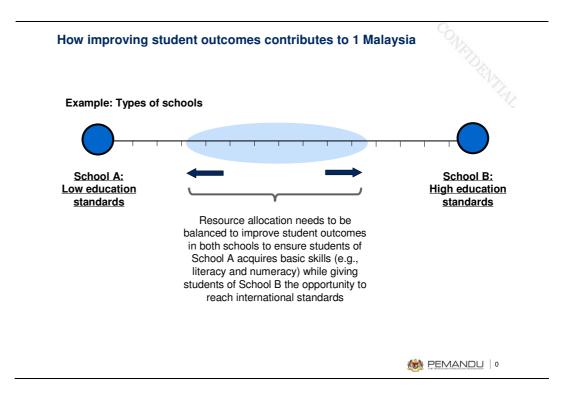
PEMANDU LAB HIGHLIGHTS: Improving student outcomes

"Widening access to quality and affordable education is the priority of this Government and my Ministry. We must raise our standards to be internationally comparable while ensuring the achievement gap between the educated and less-educated is closed. The importance of the education system cannot be overemphasised given its role in strengthening the competitiveness of our nation and in building IMalaysia. For example, to contribute towards IMalaysia, the status of national schools must be elevated such that they become the school of choice for a broader segment of Malaysians. This chapter lays out our initial plans for what will become broader reforms to the National Education System over time. I am personally committed to ensure that the ambitious targets summarised at the end of this chapter are achieved, and seek the support and assistance of all parents, teachers and administrators to work with me and my team to make this happen"

(Tan Sri Dato' Haji Muhyiddin bin Mohd Yassin, Minister of Education)





Malaysia has made enormous strides in its education system over the past 50 years. Our adult literacy rate is now above 92%¹. We have also achieved universal primary enrolment, and among developing countries we have one of the fastest growth rates in secondary school enrolment².

But we cannot be complacent. Malaysia's education outcomes have deteriorated compared to countries like Singapore, Hong Kong and Korea. The *gap within* Malaysian student outcomes is also widening, e.g. ~20% of Malaysian students failed to meet the minimum TIMSS benchmarks for Maths and Science in 2007, compared to ~5-7% in 2003. This situation is cause for concern, as higher education levels consistently correlate with long-term economic growth – unless we push ourselves to raise the bar, Malaysia risks being left behind in education today and in competitiveness tomorrow.

The aspiration of the Education NKRA, therefore, is to improve student outcomes across the Malaysian school system, and to enable access to quality education for all students. Improving student outcomes is crucial to developing a more competitive workforce as Malaysia pushes towards being a developed nation by 2020. On the other hand, making quality education more accessible ensures more Malaysians gain the chance of improving their living standards. Achieving

¹ UNDP Human Development Index, Malaysia, 2008.

² UNESCO, 2005. Education Trends in Perspective.

universally high outcomes in our education system is only possible by ensuring that schools deliver high quality instruction to each and every child.

Improving student outcomes with limited resources often involves making tradeoffs between competing interests or polarities. Therefore, it is crucial that these polarities are managed in an equitable manner while trying to maximise the benefit to the overall student population. For example, in the polarity diagram on the previous page, resources should be used effectively to deliver improved outcomes and divided equitably between these 2 types of schools to benefit all students irrespective of their starting point. This in turn would allow all students to gain the basic skills required to be a productive member of society while also providing the opportunity for exceptional students to realise their full potential.

Based on learnings from the world's top performing school systems, there are four imperatives to improve student outcomes:

- Attract and develop top teachers: Increase attractiveness of the profession to get the best and brightest; enhance quality of practical training; put in place rigorous performance management and continuous development
- Invest in great leaders for every school: Invest heavily in principals as the primary drivers of change via rigorous selection, extensive training, and robust performance management based on student outcomes
- Delivering for every child: Set the same high expectations for all students (regardless of background) and provide systematic help and support to children who fall behind. processes which are designed to
- Hold schools accountable for changes in student outcomes: Provide autonomy (e.g. in personnel management) while demanding significantly improved student outcomes in return

Side bar / box: Examples of initiatives undertaken by some of the topperforming school systems

Ensuring every child succeeds:

Great systems are those that ensure that every child succeeds. They do so by first setting the same high expectations for all students regardless of their background, and second, recognizing that some students – for instance, those from disadvantaged socioeconomic backgrounds – require more support to reach common benchmarks.

In Finland, schools provide additional one-on-one or small group tuition to

support those who are falling behind for whatever reason (called 'special education'). Special education teachers receive an additional year of training and work with a wider support team – psychologists, nurses, and special needs advisors – to provide comprehensive support.

In the US, the Knowledge is Power Program (KIPP) charter schools are privately-managed, publicly-funded schools which are delivering significant changes in student outcomes amongst low-income students. These schools deliberately over-invest, with students spending 60% more time in school through longer school days, Saturday classes, and summer school. In a country where less than 20% of low-income students go on to college, KIPP schools have seen more than 80% of their students do so.

Holding schools accountable for changes in student outcomes:

The best performing systems are those that set high expectations for each school in terms of changes to student outcomes, monitor performance against those expectations, and provide tailored support whenever those expectations are not met.

Examples are systems like those in New York City (the US) and Alberta (Canada). New York City assesses schools by changes in student outcomes, with additional weight accorded to gains made by 'hard-to-teach' student subsegments. Alberta uses a sophisticated accountability system that looks at a wide range of factors (e.g., student and parental satisfaction) in addition to changes in student performance in their province-wide assessment tests. Crucially, neither system simply measures performance, they both actively manage it. These systems require struggling schools to take clear measures to turn around their performance within a defined time frame and provide tailored support to increase the school's chances of future success.

Investing in great leaders for every school:

The best systems leverage their principals as drivers of change by implementing a rigorous selection and training process and focusing each principal's time on instructional leadership.

In Boston, principal candidates go through a fellowship program that includes an apprenticeship component and training courses focused on management techniques and instructional leadership. Promotion is not guaranteed, but dependent on the extent to which candidates have demonstrated the required competencies to succeed. Once appointed, Boston's new principals are further supported by a series of programs such as an induction workshop aimed at preparing principals for their first two to three weeks in the school, on-going

mentoring by an experienced principal with a complementary set of skills, and 'just-in-time' seminars to cover specific problem areas as requested.

Attracting and developing top teachers:

Top performing systems attract and admit only the best candidates into teaching, continuously develop them in school-based settings, and develop a strong performance-based culture. Examples:

- Attracting and admitting only the best: Many of the top-performing systems provide attractive salaries to draw their best and brightest to teaching. South Korea is an extreme case salaries start high and rise to a maximum that is two-and-a-half times higher than the average maximum teacher salary in the OECD. There, higher salaries appear to have resulted in an increase in the quality of people becoming teachers. In top systems like Singapore and Hong Kong, only the top third of each cohort are accepted to be candidates for the teaching profession
- Develop teachers in school-based setting: Japan leverages an intense training program for first-year teachers during which trainees develop their practical teaching skills. Trainee teachers work full-time in schools and during their first year are provided with up to two days of one-on-one coaching and support each week from 'guidance teachers'.
- Developing a performance culture: In New Zealand, to receive their teaching license, teachers must receive satisfactory reviews from their principals during their first two years of teaching

As part of the transformation program in education, the Government will initially focus on the first three imperatives:

- Ensure every child succeeds:
 - Ensure all children have basic literacy and numeracy skills after 3 years of primary school education by 2012
 - Increase the pre-school enrolment rate to 87% (of both 4+ and 5+ yearolds) by 2012, while ensuring the education received is of the highest quality
- Hold schools accountable: Develop 100 High Performing Schools (HPS) by 2012

• Invest in great leaders: Put in place a performance based management through a 'new deal' for Head Teachers and Principals

Pre-schools: Increase the pre-school enrolment rate of both 4+ and 5+ year-olds and improve the quality of the system

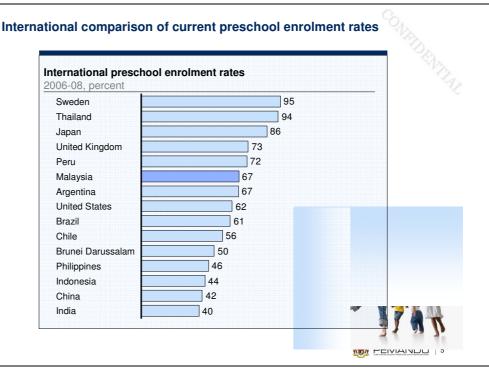
The importance of pre-school education to give children a head start once in school is well documented. According to UNESCO, early childhood education plays a vital role in developing a child's mind and physique and helps reduce existing and future disadvantages³. This has been further reinforced by research in the US which found that children who attended a pre-school program were more committed to education and earned higher incomes in later years (Figure 1).

Figure 1 Getting a head-start in education has significant HIGH/SCOPE. long-term impact on students Pre-school programs are known to have lifetime effects Achievement of individuals - US Study No-program group Percent of sample set Group which attended pre-schools programme 40 Earned \$20K+ at 40 60 60 High school graduate 77 38 Committed to school at 14 61 28 Ready for school at 5 67 SOURCE: High/Scope Perry Preschool Study PEMANDU 4

Given the importance of pre-school education and the scope for Malaysia to increase further its enrolment rates which currently stands at 67% for 4+ and 5_ children (Figure 2), pre-school education was therefore made a focus area under the education NKRA.

³ UNESCO's Education For All Monitoring Report, 2008

Figure 2



To achieve higher enrolment rates and better quality of pre-school education, 7 key thrusts have been identified to strengthen the governance and delivery of high-quality pre-school education.

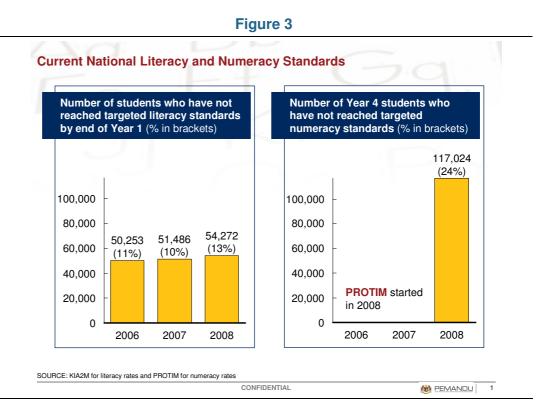
- 1. The National Committee on Pre-School Education and a Pre-School Division will be established to govern all the different pre-school providers. It's role would be to develop preschool education policies for government and registered private preschool providers, including curriculum, qualification requirements, trainings, evaluation, coordinate between all preschool providers/agencies and evaluate preschool education outcomes to determine future policy direction. This committee will be chaired by the Ministry of Education with permanent members comprising of Director General of Education, the heads of other major government pre-school providers which are Jabatan Kemajuan Masyarakat (KEMAS) and Jabatan Perpaduan Negara dan Integrasi Nasional (JPNIN), as well as the head of the Private Education Division of MoE.
- 2. Roll-out in January 2010 the National Pre-School curriculum standard (NPCS) which has been developed in collaboration with the private sector. Highlights of the NPCS include the following
 - Incorporates principles of holistic education and is learning outcomes oriented

- Ensures that teaching and learning is conducted taking into account different student backgrounds
- Defines the use of Malay, English and mother tongue as instructional languages
- Includes activities to foster understanding of different races and participation in cultural activities
- 3. Harmonise the support of government pre-school students. This would include equalizing per capita grants across the pre-schools provided by KEMAS, JPNIN and MOE and harmonizing and increasing meal grants to compensate for price inflation in recent years.
- 4. Improve the quality of pre-school teachers and teacher assistants. Targeted training programs will be offered to both teacher and teacher assistants to upskill approximately 30,000 existing and new staff over the next 3 years. For new teachers and teacher assistants, the minimum qualification requirements will be elevated to graduate and SPM level, respectively. In addition, a new pre-school excellence framework will be developed, detailing outcome based targets expected to be achieved by respective schools.
- 5. Increase the number of pre-school classes, in particular for the 4+ age group. Based on targeted enrolment rates and current capacity, the number of additional classes required is approximately 10,000. The ramp-up of the preschool capacity will be achieved jointly with the private sector.
- 6. Increase public-private partnerships in pre-school education. New incentives and subsidies will be offered to private pre-school providers, in particular in urban poor and rural areas. In exchange, private pre-schools will adhere to the standards set by the National Pre-School Committee, including outcome-based quality targets.
- 7. A national pre-school information system will be developed to collate both administrative information such as physical location of the school, student and personnel particulars, as well as performance related data. The availability of such information is pivotal to the work of the National Committee on Pre-School Education, such that new policies can be developed building on a transparent fact base while enabling the monitoring and evaluation of the pre-school education.

Literacy and Numeracy: All children⁴ should have acquired basic literacy and numeracy skills after 3 years of education

This is an ambitious target as even for adults, less than 30 countries in the world have a literacy rate of 100%. However a significant improvement in literacy and numeracy rates is very important for three reasons.

First, in 2008, there were more than 54,000 students in Year 1 (~ 13% of total Year 1 population) who did not meet their targeted literacy skills (Figure 3) and an estimated 117,000 (24%) students in Year 4 who did not meet their targeted numeracy skills.

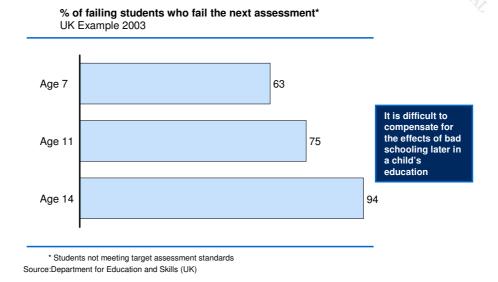


Second, research by the Ministry of Education revealed that one of the factors which contribute to drop out rates is the inability of students to cope with the syllabus which is being taught. In 2008, there were close to 32,000 students who dropped out of school at various stages. Therefore, a good grasp of basic literacy and numeracy skills early in a student's life is expected to help reduce the drop out rate. This is crucial as it becomes harder to compensate for this as a child becomes older as failure is cumulative over time (Figure 4).

⁴ Children with learning disabilities will be placed under a special education programme with separate targets.

Figure 4





Finally, being literate and numerate will enable our children to be more productive and participate fully in their community and wider society.

Text Box: The definition of basic literacy and numeracy

Literacy is defined as the ability to read and write and understand words, simple and complex sentences in Bahasa Malaysia and to apply the knowledge in the child's daily learning and communication⁵.

Numeracy is defined as the ability to read, write, count and arrange numbers up to 1000, competent in mathematical operations of addition, subtraction, multiplication and division; and able to apply these in money, time and length operations⁶.

⁵ Based on UNESCO's definition

⁶ These are based on benchmarks from the US and Canada

Strategy to achieve literacy and numeracy targets

To achieve this ambitious target, a new Literacy and Numeracy program, (LINUS) has been developed. LINUS is a remedial programme designed to ensure students acquire basic literacy (in Bahasa Malaysia) and numeracy skills. It consists of a 6-part integrated strategy which focuses on all the main levers of literacy and numeracy.

Screening process

The screening process will be conducted three times a year in March, June and October to help identify students which do not meet the relevant standards. These students will then either be placed into the LINUS programme or into a Special Education programme if they have a learning disability. Details of the screening process are depicted in the Figure 5.

LINUS programme screening process Year 1 Screening 1 (March) No LINUS Screening 2 (June) Special Medical Main needs Nο No students stream education LINUS (September) No No LINUS PEMANDU 3

Figure 5

Teaching and learning modules: New literacy and numeracy modules for Year 1 to 3 students are being developed. This is different from previous remedial modules which either only focused on literacy skills or only on students in Years 4-6. In addition, the modules will be improved by sequencing easier-to-grasp concepts earlier while placing emphasis on application of the concepts learnt.

- **Teachers' training**: Given that there is a shortage of teachers who have expertise in basic literacy and numeracy, intensive training of the teachers will take place to enable effective delivery of the learning modules. Between the November 2009 and February 2010, close to 17,000 teachers will be upskilled via training programmes which will be broken down into 2 phases.
- Building commitment of all stakeholders: Awareness programmes and activities will be organised for State Education Departments, District Education Departments, Head Teachers, Parents, Teachers Association, and members of the public. This is to explain their respective roles in the LINUS programme and gain their support. These sessions will be kicked-off in December 2009 January 2010.
- Monitoring and oversight: Intensive monitoring and supervision will be conducted on roughly the bottom 10% schools by the officers in the State Education Department, District Education Department and the MOE's Jemaah Nazir dan Jaminan Kualiti division. Reports on the results of the monitoring will then be produced twice in 2010 to track progress of children who are in the programme.
- Expert facilitators at the district level: These facilitators, attached to the District Education Department will be hired to the support literacy and numeracy teachers in schools. Apart from coaching and mentoring the LINUS programme teachers, they will help the schools develop tailored strategies based on results of the screening test to address specific literacy and numeracy issues faced. In addition, they will also act as a link between the schools and the District Education Departments and the Ministry of Education.

High performing schools: Develop 100 HPS by 2012 and lift the performance of all schools in the system

High Performing Schools (HPS) are defined as schools with ethos, character and a unique identity which enable the schools to excel in all aspects of education. These schools have strong and excellent work cultures and dynamic national human capital for holistic and continuous development in addition to being able to compete in the international arena.

The decision to include HPS as part of the Education NKRA is based on the following rationale:

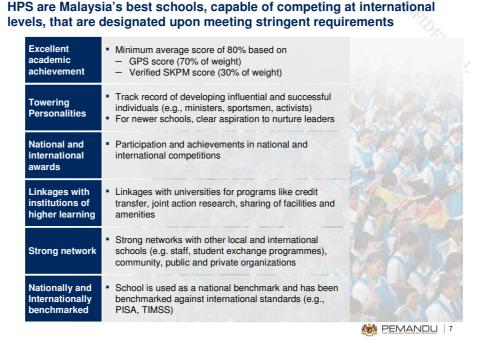
• Raise the quality of the best performing education institutions through increasing the level of autonomy in how a school is run, coupled with increased degree of accountability for student outcomes in return.

- Create a breeding ground for international calibre students, who move on to the best institutions of higher learning, and graduate into 'towering personalities' in all fields of work
- Paint a vision whereby other schools can aspire to be like these world-class Malaysian schools, and providing them the right platform to make this journey through coaching and mentoring network between these schools.

Criteria for HPS

Before a school is awarded the HPS status, it will need to meet stringent and holistic criteria which takes into account academic achievement, strength of its alumni, international recognition received, network and linkages with external entities. Details of these criteria are contained in Figure 6.

Figure 6



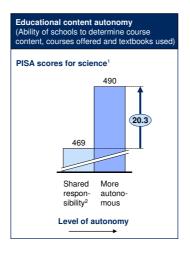
Incentives provided for HPS

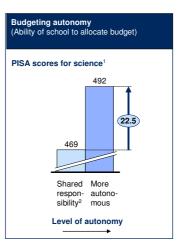
HPS will be rewarded with a tailored package of benefits aimed at allowing them to excel further and reach even higher performance levels. The benefits are largely in the 4 areas mentioned below:

Increased autonomy in decision-making. High performing schools will be given the flexibility in adapting curriculum, instruction methods, student policy, as well as personnel and financial management. Studies have found that increased level of autonomies are associated with increased level of school performance – Figure 7

Figure 7

Fiscal autonomy and instructional decision making have been found to be correlated with higher school performance





- 1 Controlling for demographic and socioeconomic background of students 2 Decision making shared evenly between government and school

SOURCE: PISA 2006: Science Competencies for Tomorrow's World, Volume 2 Table 5.19e



- Financial incentives for schools, school leaders, teachers and nonacademic staff. These incentives consist of an allocation of RM 700,000 per school, RM 1,000 per person in secondary schools and RM 700 per person in primary schools, spanning school leaders, teachers and non-academic staff.
- **Greater range of options for human capital development.** These options include sabbatical for head teachers and a greater range of professional development programmes tailored to individual needs.

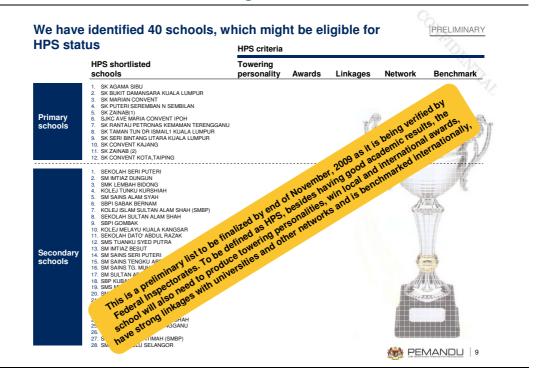
- Allow high achievers to advance faster through the education system. Parents of the top performing students will be given the option to allow their child to complete the relevant syllabus in a shorter time frame. These students could bypass Year 2 by covering 50% of its syllabus in Year 1 and 50% in Year 3.
- Lift the performance of other schools in the system. High performing schools will be responsible for sharing their knowledge and expertise with other schools in the system. This would happen in the form of mentoring networks amongst the teachers and principles, student exchange programmes, teacher attachment programs, and lectures / knowledge sharing sessions. This would help ensure that the benefits of creating High Performing Schools will be magnified across the school system.

Concerns over imprudent spending are addressed by ensuring that the fiscal autonomy is tightly linked to outcomes. The measures include putting in place financial guidelines to prevent imprudent use of funds (e.g., arms length transactions with service providers), clearly defining performance targets, making the schools accountable for the use of resources, and implementing strict remedial measures if a HPS fails to meet performance targets.

The inaugural batch of HPS for 2010

Based on the criteria described in the earlier section, the inaugural batch of 20 HPS have been identified as described below (Figure 8). (*To be finalised by the end of the year*)

Figure 8

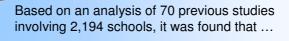


8.4 New deal for head teachers: Significantly improve the performance of head teachers and principals via performance management

To materially upgrade our school system, we must invest heavily in principals and head teachers as the primary drivers of change. Research has found that an improvement in head teachers' performance has a significant positive impact on student outcomes (Figure 9). Principals play an active role in developing their teachers, and plan, coordinate and evaluate teaching and learning activities in their schools. They also ensure that the school environment is conducive for learning by reducing external pressures and interruptions and establishing an orderly and supportive environment both inside and outside classrooms.

Figure 9

Student outcomes have been found to improve significantly if a top school leader replaces a bottom performing one



... a school leader of an average school who improves his leadership ability by 1 standard deviation can expect his/her school's student achievement to improve by 10 percentile points

SOURCE: School Leadership That Works (Mid Continent Research for Education and Learning – McREL)

characteristics:

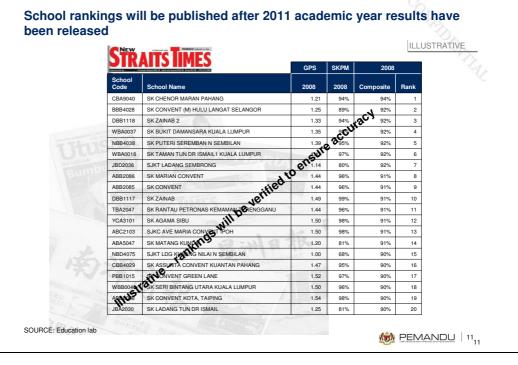
The new performance management approach for head teachers and principals which will commence in academic year 2010 will have the following

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- Applicability: This 'New Deal' will be applicable for Head Teachers and Principals for all government schools in Malaysia. This includes the following types of primary and secondary schools Sekolah Kebangsaan, Sekolah Jenis Kebangsaan, Sekolah Agama Bantuan Kerajaan, Mission schools, Model Khas, Cluster schools, Sekolah Menengah Kebangsaan, Sekolah Berasrama Penuh, Sekolah Agama Bantuan Kerajaan and Sekolah Teknik dan Vokasional.
- Performance measurement: Performance of the schools will be based on a composite score consisting the Grade Point Average (70%) and Standard for Quality Education in Malaysia (SQEM) (30%). The Grade Point Average in turn is based on performance of schools in public examinations UPSR, PMR, SPM and STPM. On the other hand, SQEM is a self-evaluation tool measuring 4 performance dimensions which are vision and mission, organisational management, educational program management and pupil accomplishment.
- Transparency in performance in school performance: Performance of all 9,900 will be ranked on a yearly basis and published for public consumption

from 2012 onwards (Figure 10). The rationale for publishing this information is to allow engagement with the public and ensure parents know how the schools are performing. Transparency will also create motivation for the schools to raise their level of performance.

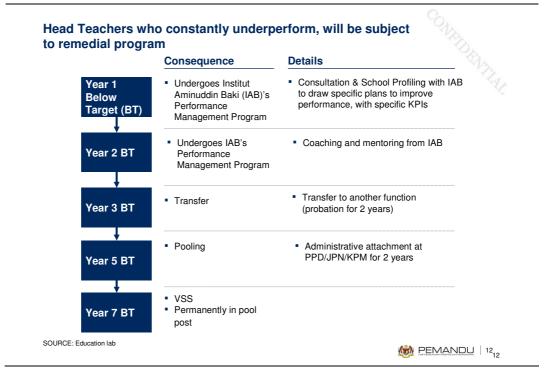
Figure 10



- Eligibility for rewards: Based on a simulation on past performance, it is estimated that approximately 2% of Head Teachers and Principals will be eligible for the rewards under this programme. The criteria for them to meet before they are eligible is as follows:
 - A specified target composite score OR target improvement in their performance rankings. This would allow head teachers a chance to receive the rewards regardless of their starting point as even those with lower positions will be able to receive the reward if they show significant improvement in their rankings.
 - Annual Appraisal Report (LNPT) score of > 90
 - Unqualified financial audit report from the State Education Department
 - Free from disciplinary actions taken; and
 - Achieves school literacy and numeracy targets (for primary schools)

- Rewards for Head Teachers and Principals: Both financial and non financial rewards will be given to those who exceed target. These consists of a payment of RM 7,500, attachment program with reputable institutions locally or abroad (for those who significantly exceed targets for three consecutive years), accelerated promotion, and Certificates of Recognition
- **Rewards for Teachers:** Teachers in schools with a Head Teacher or Principal who qualifies for the reward will also be eligible for a financial reward. The top 5% of teachers in the school will be receive RM 1,800, the next 95% receives RM 900 while the bottom 5% will not be eligible for the reward. The categorisation of teachers in these performance bands will be determined by the Head Teacher or Principals themselves.
- Remedial and development program: Approximately 10% of the bottom performers will be identified based on the lowest composite score. They will be provided with training and upskilling in an effort to help them improve performance. In the first year, these head teachers will undergo Institut Aminuddin Baki's Performance Management Program where specific plans will be drawn up aimed at improving performance of their respective school. In the second year, these head teachers will also be given dedicated coaching and mentoring support by qualified officers from the institute to help them improve performance. However if these measures are ineffective and performance continues to be poor, actions such as transfers and voluntary separation will be taken as detailed in Figure 11.

Figure 11



The Government commits to the following NKPI targets

The outcomes expected over the next 3 years are described in the table below

Focus area	КРІ	Current	2010
Literacy and Numeracy	Literacy Rate	• Year 1: 87%	• Year 1: 90%
	Numeracy rate	• Year 1: 76%	• Year 1: 90%
Pre school education	• Enrolment rate (4+ and 5+)	• 67%	• 72%
High performing schools (HPS)	• Number of HPS	• -	• 20
New deal for head teachers	• % of head teachers who exceed target	• -	• 2%
	• % of head teachers who perform below target	• -	• 10%

Early signs of progress seen on education

To ensure that some of the new programmes will be able to be implemented for the 2010 school year, execution of the some of the plans have already commenced. Amongst the progress that has been achieved are as follows:

- Completed Year 1 teaching and learning modules for the literacy and numeracy (LINUS) teachers to used in class from academic year 2010 onwards. In addition, the Year 1 literacy and numeracy screening instruments to identify students who should be placed into the LINUS programme have also been completed.
- Completed ranking of all primary and secondary schools (10,000 in total) based on the results for 2008 academic year as well as the SQEM scores of these schools. This is the first time in the history of the Malaysian education system that such a ranking exercise has been undertaken. This was then used as a basis to design the rewards and remedial programs under the New Deal for Head Teachers focus area.
- Selected and announced the first batch of High Performing Schools by Jan 2010. (TBC)
- The trust school initiative is also well underway. Trust Schools are public schools that are managed jointly by private sector partners and Ministry of Education (MOE) school leaders under the umbrella of the MOE. The MOE provides Trust School leaders, teachers and their private operating partners greater freedoms, and in return requires accountability in the form of improved student outcomes. Following the syndication efforts undertaken in late 2009, there is positive and growing support for Trust Schools and the concept was officially launched by the MOE in December 2009, where the private sector was encouraged to apply to be sponsors. This selection process will be overseen by a sector recently set up within the MOE to oversee the implementation and operation of trust schools. The first batch of trust schools is expected to be in operation by January 2011.

The Education NKRA areas will form the starting point for broader comprehensive education transformation

As mentioned previously, progress in achieving the NKPI targets will help to build a foundation for improving student outcomes and widening access to quality education. While the programmes above are important to reform the education system, they are just the start of our education transformation journey across our

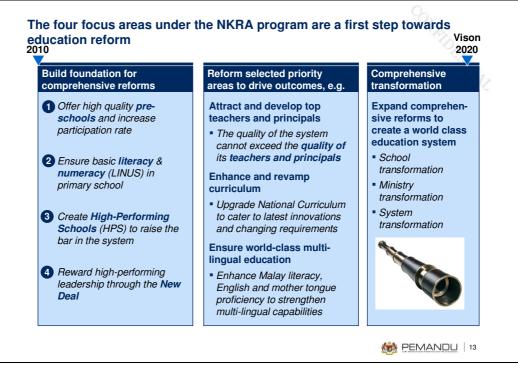
schools, the ministry and across the system. Much more needs to be done in order to further lift the Malaysian education system to be among the best in the world.

Other countries have demonstrated that delivering substantial improvements in both education outcomes and factors that drive them is challenging but achievable. To further the progress of education transformation in Malaysia, the government will also focus on the following critical enablers (Figure 12)

- Attract and develop the best teachers and school leaders: The quality of an education system cannot exceed the quality of its teachers. The government is committed to ensuring that we transform our education system to be more effective in getting the best possible talent to become teachers, developing these teachers into better instructors, and ensuring that these instructors deliver consistently for every child in the system.
- Enhance and revamp curriculum: All top performing school and rapidly improving school systems have curriculum standards which set clear and high expectations for what students should achieve. Going forward, the government will intensify efforts to align our education standards globally, and to match current teaching to our country's future requirements.
- Focus on enhancing multi-lingual instruction: Malaysian schools can do more to improve the delivery of multilingual instruction, anchored to having exceptional language teachers. The government will focus on ensuring truly world-class instruction in English across the school system, as well as delivering strong mother-tongue instruction essential for initial learning and literacy.

Putting these things in place will require more general transformation and reform to the school system. In order for reform to succeed, this will require effective, sustained and committed leadership both at the level of the system and at school-level. In addition, there will be a need to change the governance or management of the education system as a necessary pre-requisite for improvement.

Figure 12



The rakyat's role as parents is critical in improving student outcomes

Achieving many of the education NKRA targets will depend on coordinated efforts by the government, schools administrators, teachers and parents. Parents actually can help play a very important role in this respect by taking interest in the child's educational development. For example, parents can help to improve their child's basic literacy and numeracy skills by reading to them using different voices, emotions, tones and invented sound effects and by infusing daily conversations with the elements of time, shape and measurement. In addition, with regards to pre-school education, parents should enrol their children who are four years old in pre-schools as these classes become available by 2012. This would give their children a head-start as attending pre-school education has positive impact on a child's long term development.