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Principals,

Colleagues,

1. I am pleased to join you at MOE's WorkPlan Seminar 2008.

Our Journey in Education – Taking Stock, Forging Ahead

2. At each WPS, we review as one MOE family what we have achieved and set directions for the coming year. We also acknowledge through awards, schools and their leaders who have excelled in bringing out the best in their students. I want to congratulate all recipients today for their hard work and going many extra miles for your students. Their successes and growth make it all worthwhile.

3. Singapore's education system today is highly regarded internationally. It was not always so and we did not inherit strong foundations. On the contrary, we should have been mediocre as for much of our history, teaching was in disparate school clusters based on communal ties rather than sound fundamentals of education. Not surprisingly, in the first Primary School Leaving Exam conducted

and wasteful because it would mean only a few at the top can succeed, have all A*s to enter top schools, while the rest are not so good or have not succeeded. More importantly, measuring success by grades alone does not reflect adequately the value of education that should last a lifetime - long after result slips have been filed, gathered dust and browned. Our education system must prepare our students for life, not as a short sprint but as a marathon. Yes, some do exceptionally well and cross the finish line very early. But the majority after them also complete the race of life and leave their mark. Some take longer, but they too finish and are winners in their own right. Our task as educators must be to prepare each child well for the long journey ahead.

9. The awards we give out today reflect this emphasis and encouragement on holistic education. For the pinnacle awards, the School Excellence Award, academic achievements form only 20% of the evaluation process. This is also why in recent years, changes were made to the secondary schools and junior colleges. We wanted our education system to better suit the child and his uniqueness - not the other way around. Now, Normal (Academic) students can take 'O' level subjects if they are capable and willing to work hard. Normal (Technical) students have also benefited from a stronger focus on practice-oriented learning, because they learn better that way. If they want to, they can also take up applied learning modules that are offered in collaboration with polytechnics, or with ITE.

10. In 2004, we introduced Direct Schools Admission. It sent a powerful signal that other talents beyond academic excellence were also valued and allowed our schools and institutions to admit students with these talents. The Sports School, NUS High School, SOTA and the new School of Science and Technology starting in 2010 are new avenues to suit the system to the student. Similarly, NorthLight School, and Assumption Pathway School starting next year will cater to students who can benefit from a more hands-on curriculum. More importantly, it provides teachers with big hearts and special skills that can motivate these students and restore their lost confidence.

11. Across the education landscape, with new schools, changing curriculum and new pedagogies, we have enhanced our education system to provide more opportunities to develop the full spread of talents among our students. Amidst all these, school leaders and teachers have been at the forefront driving these improvements.

A more balanced education – ideas from teachers and principals

12. When I returned to MOE in April this year, I wanted to know how much energy was left in the system. After all, MOE had introduced many new measures in the last 10 years. Perhaps it was time to consolidate, wait a while, before setting new directions. So when reporters asked what I wanted to do, I replied that I would listen first. Over the past few months, I, the Permanent

Secretaries and DGE have met many principals, vice-principals and teachers and visited many schools to hear your views. My questions were usually simple. What has been the impact of changes? Should we do more? I was cheered by your replies. Instead of resting on your laurels, most said that more can and should be done. Let me summarise what you said.

13. Many of you told us that we need to strengthen the emphasis on nurturing life-ready traits, starting from primary school. You want to place the student at the core and re-balance the teaching of content, to provide more space to nurture life skills and values. This is an extension of the Teach Less Learn More philosophy. Children should enjoy school and learn through play. Our students should learn more of what will be valuable to prepare them for the world and for life.

14. Many shared why it was important to retain the inherent curiosity in children, to make sure that it was not dampened throughout the course of their education. After all, all young children ask questions. In our classrooms, especially in primary schools, this should be encouraged. Their innate desire to learn, explore and be inventive should be nurtured and celebrated. Stubborn curiosity is a fundamental trait that allows one to push limits and take calculated risks to learn new things.

15. Almost all that we spoke to believed that our children must grow up to be confident young people. They must be secure in their own identity, be able to form their own opinions, and communicate well to convince others. Therefore we must improve oral and communication standards to enable our pupils to articulate their thoughts with confidence. This will equip them to cope better with uncertainty and ambiguity.

16. Many shared how increasingly, learning to work well with others was an essential trait that organizations looked out for when recruiting people. In an inter-connected world, and in our multi-racial society, it is necessary for our young to learn to mix well with others, respect differences and build strong and lasting relationships with those around them.

17. Teachers also wanted the primary schools to provide ample opportunities for students to participate in Co-Curricular Activities (CCAs), which develop a range of life-skills in pupils, promote leadership opportunities, build character and inculcate values. Some suggested using innovative approaches. For instance, introducing modular CCAs for Primary school pupils within curriculum time. This broad exposure will help pupils identify their interests and talents earlier, and help them develop soft skills. We could also promote the use of drama as a pedagogical tool.

18. In summary, there was strong alignment among our educators that we should find a better balance between the different learning domains, knowledge,

skills and values in our education system. That individual child and his development should rightly sit in the centre of our endeavors.

Curriculum 2015 Committee - Nurturing our Young for the Future

19. At the same time, another team, the C2015 (Curriculum 2015) Committee, consisting of HQ staff and school personnel were also asking what we should teach our students to better prepare them for the future. Their starting point was this: a child born this year will enter our schools in 2014 and start work probably around 2030. How do we prepare that child today to excel in the future environment driven by technological advancements and globalization? To get some answers, they visited systems outside Singapore, talked to educators here and abroad. This is still work in progress but let me share some of their preliminary insights in three broad areas.

New Skills and Competencies

20. First, our children will need to learn better ways to handle information. The struggle now is not with having insufficient information – but rather, having too much and having to make sense of voluminous inputs.

21. With the Internet Revolution, information on just about anything is collected for you through powerful search engines at a click. It is not possible for one person to remember the massive amount of information at his fingertips. Even postgraduate medical candidates are allowed to use Personal Digital Assistants (or PDAs for short) to store downloaded textbooks for reference during examinations. MIT has put all its course materials on-line for free access.

22. The premium is therefore no longer on collecting facts but on critical analysis - knowing what questions to ask, what information you need and the value of different sources of information. Students cannot be just mere passive conduits of information. They will need to be able to connect between different interfaces and domains. They will need to approach problems with an interdisciplinary lens and integrate the sciences and humanities to problem solve.

23. Take for instance the new models of phones, including Apple's I-phone. Why was it a runaway success? Not because of technology, fashion or marketing alone, but a combination of all these elements. Behind the product, powerful minds and intensive research went into not just the technology, but also how humans prefer to function. Thus the sleek design with touch screens, better icons and seamless navigation. We have to teach our students to go beyond simply acquiring knowledge, towards exploiting it to improve lives.

People Skills, Working in Teams and Across Cultures

24. Second, globalisation has shrunk our World, or as Thomas Friedman would say, has made it flat again. Our society will become increasingly cosmopolitan and more Singaporeans will work, travel and live in other parts of the world. Just last year, in a Pricewaterhouse Coopers survey of almost 3000 new graduates from China, the US and the UK, 94% believed that they would work across geographic borders more than their parents did.

25. We need to ensure that Singaporeans can excel in the future workplace. Our students will need language skills and a larger worldview, coupled with the ability to work in and lead teams of people with diverse cultures, ideas and perspectives. More than ever, they will need good interpersonal and leadership skills to forge consensus and provide direction. They will also need to be able to find solutions to complex problems in different geographical regions.

Rootedness and Values

26. Third, knowledge and skills must be anchored by values and character development. While it is important that we help every child go as far as he can, the ultimate goal is self-sufficiency, not self-centredness. Without a moral and ethical compass, all knowing will come to nought. Our education system must also impart societal and universal values, such as the aptitude for life-long learning, resilience, integrity, compassion and the responsibility to contribute back to the community. Parents and family continue to be primarily responsible for imparting values to the children but schools have an important supporting role. Each complements the other, and both are needed.

21st Century Skills

27. The C2015 Committee discovered that education systems elsewhere had also factored in the impact of future trends and challenges on educational demands. A common thread is the emphasis on equipping our young with the appropriate skills and mindsets to prepare them to navigate a fast changing, globalised world. This is popularly referred to as “21st century skills¹”, which stress the need to develop thinking, communication, collaboration and management skills. As another desired outcome of education, added competencies are also required to produce a confident person, a self-directed learner, a concerned citizen and an active contributor.

Retain Core Strengths in Traditional Curriculum

28. These new dimensions in educational outcomes should not mean that we jettison or dilute our core strengths. We must retain our strengths in maths and science. Technology continues to give countries the decisive edge, bringing about dramatic improvements in productivity², and driving economic growth.

29. Countries around the world – Finland, Korea, China and India for instance – all emphasise a strong foundation in math and science in school. This ensures a strong pipeline for engineering at the tertiary levels. And those that may not have paid adequate attention to this area are rushing to keep up. Several states in the USA are including engineering content in their state science requirements for high schools. At the federal level, starting next year, the U.S. Education Department will also be integrating technology and engineering concepts into national assessments³.

30. Singapore too must maintain our strong academic foundations and high standards even as we seek a better balance between teaching knowledge and developing skills and values.

Primary Education Review

31. How do we respond to these ideas from teachers and the C2015 Committee? One decisive way is to review our Primary education. Even as we do so, we should continue to maintain our academic standards. Thus the PSLE, as our national examinations that keeps standards up, should not be changed.

32. Many parents complain that the PSLE gives rise to much stress but this cannot be the reason to change it. All countries need some form of assessment to evaluate their student outcomes. Even if we switched to another system, stress will still occur if the child does not do as well as expected. If success is measured only by PSLE scores or that of any other exam we change to, then very little else counts or matters.

33. We will have to educate our students, and sometimes parents too, that they can achieve success in a variety of ways. This is what the review should be focused on - to place more emphasis on imparting new skill sets and character traits that will help them to go as far as they can in life, not just exams.

34. Several primary schools that are receiving awards today exemplify enlightened and energetic Principals that are embarking on this wider path. I will just mention a few.

¹ The studies include Partnership for 21st Century Skills, enGauge 21st Century Skills and OECD's Project DeSeCo (Definition and Selection of Competencies), which surfaces a set of competencies needed by the young for the future

² Digital Prosperity: Understanding the Economic Benefits of the Information Technology Revolution, by Robert D. Atkinson and Andrew McKay, March 13, 2007

35. Raffles Girls' Primary for instance, has a Literature-in-Action programme across all levels. Teachers tap on popular literature, to not only teach English, but also impart character education, by drawing on virtues and values demonstrated by characters in the story. The P1 to P5 pupils get to role-play scenes from the stories in front of the class and try their hand at writing their own scripts, while the P6s dabble in poetry as part of creative writing. It exercises their imagination, and builds confidence in oral and written communication. At Kong Hwa Primary, to spark pupils' curiosity in learning more about the Life Sciences, the science department has incorporated the learning of DNA and heredity into the P5 science curriculum. I hear the pupils even have a taste of forensic science, through "DNA Fingerprinting" lessons at the Science Centre.

36. At Radin Mas Primary, the P1 and P2 pupils look forward to coming to school every Wednesday, because they have modular CCAs for 2 periods. They are exposed to a variety of dances, music and games, which the teachers use as platforms to encourage team-building and confidence. It also gives the pupils a chance to identify their own interests and talents.

37. But these new approaches are not only taking place in award winning schools. In my visits to schools, I am struck by the vibrancy and activity that is already taking place across the island. Many schools have on their own started programs to find creative ways of imparting life-ready skills to pupils, through both academic and co-curricular programmes. Teachers talked about using different pedagogical approaches that will more effectively nurture key skills and values; to have a more interactive and questioning class environment, leveraging on IT and outside the class activities so that children would enjoy learning through self-discovery and a healthy exchange of views; allowing children to experience success in learning, and giving them opportunities to work in teams and practice their presentation skills. They were convinced that we needed to devote more time to skills development in delivering the formal curriculum.

38. How do we enable these positive aspects to be scaled up further? I have decided to appoint a Committee headed by SMS Grace Fu to look into these issues. The Committee will help decide how we can shape primary education to better develop each child. They will provide a road map about what can be done, as well as the priorities, programmes and resources that are needed to bring primary education to the next level. The Committee will engage in widespread consultations with key stakeholders, including principals, teachers, parents, students and the wider community. We want to hear your views, understand your aspirations and find out what is really important to you, before we take the next step. We welcome your contributions and suggestions, as we embark on this important journey.

39. For now, I will lay out the broad directions, starting with three major initiatives that will accelerate improvements in primary education: single-session primary schools, graduate teachers and more teaching support.

³ "Reading, Writing and Engineering", Wall Street Journal, 13 March 2008

Single-Session Primary Schools

40. One constraint is quite clear even now. Double session and even partial single-session schools limit the time and space available to achieve educational goals. As a simple example, it is more challenging to timetable and conduct CCAs and other programmes that develop character and values, when you know that you have to vacate the classroom because it is needed by another session.

41. Schools that have gone to a single-session structure have found it a better environment to teach and develop students. When more curriculum time is needed for both formal and informal programs, it has allowed some to lengthen their school day slightly, or have extended school days once or twice a week to have mass CCAs. Others have also experimented with longer periods of 45 minutes instead of 30 minutes, to allow for more quality teacher-student interactions and the use of more engaging pedagogies such as group work or for students to practise presentation skills. Teachers find it useful too, as it allows more common time for professional development and sharing among teachers, across all levels from P1 to P6.

42. We should guard against single-session schools becoming full day schools with a heavier workload for students. But I see great merit in having as a norm, single session primary schools for all. SMS Fu's Committee will study how this can be achieved within a reasonable and achievable timeframe. I think it will be possible for the majority of our schools. But, a number of more popular schools may need a little more time as they have to cater to a large intake every year. Moving to single-session will mean new schools to build and more teachers to staff them, so this is going to be a very significant investment. The Committee should work out the costs and how we can best make use of our resources to achieve a more holistic education.

43. We will also need more facilities for CCAs. MOE is already setting up two more Adventure Centres, customised for the purposes of primary schools, to be ready by mid-2011. But the Committee should study what other facilities are needed.

44. We will also need to ensure students have the financial resources to participate in more CCAs and enrichment activities. To assist, MOE will increase the contributions to Edusave Accounts for pupils from the current \$180 to \$200 per year for primary students, and \$220 per year to \$240 for secondary students from next year. We will also remove the age cap for secondary level students to be eligible for the contributions. This means an additional injection of \$11 million by MOE. This will support a wider range of enrichment programmes to enhance the holistic learning experiences. These funds must be used wisely but I would

be prepared to spend more if the Committee can justify and recommend better programmes.

Developing a New Generation School Team

45. More schools, facilities and funds are needed, but it will not be enough to attain broader educational outcomes. Another critical enabler is to strengthen the quality of our teachers and support staff. As the McKinsey report on top-performing education systems put it, the quality of the education system cannot exceed the quality of its teaching force. We are on track to meeting our target of 30,000 teachers by 2010, and will continue to recruit at current levels even beyond that.

46. MOE will continue to select teachers with the aptitude for teaching and those with a heart for nurturing young people. This is a necessary pre-requisite. But with the enhancements we want to bring about at the primary level, we will require teachers to also have a stronger mastery of content and pedagogies.

47. Currently, 69% of primary school teachers and 92% of secondary school teachers recruited have degrees, while the rest have good diploma and 'A' level qualifications. As more of our diploma graduates obtain degrees and our university cohort participation rate increased to 30% in 2015, we should be able to recruit all teachers with a degree for our primary schools. It will help raise the standards of education in our primary schools. SMS Fu's Committee will study how this can be done as well as provide more opportunities to those with A-levels or diplomas to obtain their degrees to become teachers.

48. We have at present in our system, many excellent school teachers and even principals who are diploma holders. Let me reassure you that you continue to be valued and that there will be no change to the schemes you are on or your route of advancements. You will be assessed based on performance, as is now, not on your past educational levels. There will still be room to employ diploma holders who possess specialised skills in languages, arts and music. These schemes will continue.

49. But our move towards recruiting graduates as new teachers is appropriate as the educational levels of the population have been rising over the years. There are higher expectations - both from parents and our desired outcomes of education, which are better met by graduate teachers.

50. We are not alone in deciding to employ all graduate teachers. Korea, New Zealand and Sweden too require teachers to be degree holders. Hong Kong started moving towards an all graduate teaching force⁴ since 1994. In Finland,

teachers are required to have Masters degrees either in education or in one or two teaching subjects. Academic education is highly respected and contributes to the high status of the teaching profession.

51. Teacher quality is therefore a critical enabler. We must continue to invest heavily in the professional development of our teachers. We will provide more incentives to encourage in-service teachers to pursue undergraduate and postgraduate studies in areas that will benefit their work. To facilitate, MOE has decided to double the quantum for interest-free study loans with effect from next month, so that officers will have more money to offset their living expenses. This is for both full-time and part-time studies, whether local or overseas.

52. Teachers do not work alone to educate our children. A core component of the “school team” includes our school executive and administrative staff and allied educators who are our partners in education.

53. Over the years, we have been professionalising the way schools are run. All schools today have an Administration Manager that oversees financial, human resource and general administration matters in the school and an Operations Manager who handles estate management, logistics and security. At the senior leadership level, we are also deploying Vice-Principals (Administration), so that they can drive organizational excellence, resource management and partnerships with stakeholders.

54. We have also been growing a pool of allied educators, who play a unique and specialized role in partnering teachers in and out of the classroom, to raise the quality of interaction with every child. For instance, our Full-Time School Counselors (FTSCs) dedicate themselves to supporting the social and emotional needs of the students through individual counselling, home visits and working with external agencies such as the Family Service Centre. They work closely with teachers to take care of holistic needs of students. In Bowen Secondary, the FTSC, Ms Venus Ther, works closely with teachers to plan a career guidance programme for all levels of students. She also helps to organize experiential learning activities and counseling sessions, as part of a new mentoring programme to keep at-risk students engaged in school. Venus is known for going the extra mile to get to know her students better, who look to her as a friend and mentor.

55. Students with differing abilities and learning difficulties also may need more time and attention. We have learning support programmes in Primary 1 and 2. In many schools, teachers help slower learners in smaller pull-out groups. We also have Special Needs Officers who help students with dyslexia or those with autism who are in our mainstream schools.

⁴ In Hong Kong, since 2005, all new graduates from pre-service teacher training programs for primary and secondary school teachers have been awarded degrees.

56. This year, we also provided 87 schools with Education Associates or EDAs, who co-teach the Normal curriculum with trained teachers in secondary schools.

57. They have provided invaluable help to the teachers, such as providing teaching and learning support, working with FTSCs to help at-risk students and in some cases, developing new special programmes together with teachers. For instance, Shuqun Secondary has an EDA, Miss Louisa Ho, who was able to co-teach the Secondary 3 Elements of Business Skills classes. Louisa used to run her own pre-school centre and could thus bring her real-world experiences into the classroom. She also helps to take charge of a new CCA called Adventure Learning, where students participate in a range of sports activities as part of character building. At Bedok Town Secondary, Mr Mohamad Hafiz Bin Abas who used to be a free-lance producer, collaborated with a teacher to design and conduct an in-house film-making elective module for the Sec 4NT students this year, which turned out to be very popular with the students.

58. Principals and teachers have given me positive feedback about EDAs. Going forward, we will therefore expand the pool of EDAs, so that all schools, and not just those with Normal (Course) students, will benefit from the additional manpower resources. By 2015, we will have about 1,900 EDAs in our primary and secondary schools compared to less than 100 today, and schools will have the flexibility to deploy them to meet their needs. With these changes, primary schools will each have about 5 EDAs, where they now have none, and secondary schools will have 7 EDAs compared to one today. These EDAs will partner our teachers to provide teaching and learning support for students, pastoral and welfare support and assistance in CCAs.

59. More importantly, beyond just increasing the numbers, we must recognize the contributions of our allied educators and see to their career development. Therefore, MOE has decided to formalize the teaching support staff scheme as a parallel track to the teaching scheme. MOE will establish a new career scheme to hire allied educators to support teachers. This Allied Educators Scheme (or AES) which takes effect in January 2009, will attract and retain good quality people. It will help to strengthen the professionalism of the school team to deliver a holistic education to each child. Our allied educators can look forward to competitive salaries and enhanced career development and progression opportunities. Good performing officers can upgrade their professional qualifications and join the Education Service as trained teachers. Outstanding officers can aspire to progress up to positions of Superscale grade in MOE HQ.

60. We must also see to their well-being. As allied educators work closely with students and teachers during term time, they will be placed on the school holiday scheme under the AES, similar to teachers, instead of the vacation leave

scheme like other public servants. We will be implementing an option exercise for existing allied educators to opt into this new scheme.

61. Even after these changes, let me emphasise that teachers will still remain primarily responsible for the pupils' holistic development and learning. But allied educators do provide much valuable support to teachers to achieve a more holistic education for our children.

62. At this Workplan seminar, I have outlined the key thrusts in our plans to enhance primary education, to prepare our students better for the future. We must re-balance content, skills and character development to achieve a more holistic education. More time and space needs to be created, and single-session primary schools will help us to overcome those constraints. More facilities and funds will be provided. We are setting up two Adventure Centres, customised for the purposes of primary schools. We are increasing the contributions to Edusave accounts for all students and will lift the age cap for secondary level students so that more students will be eligible for the contributions.

63. At the same time, we need good teachers and teaching support, who continue to make that crucial difference to the quality of our education. We will move towards all graduate teacher recruitment by 2015. The quantum for interest-free study loans will be doubled so that in-service teachers will be encouraged to pursue undergraduate and postgraduate studies. The new Allied Educators Scheme will strengthen the professionalism of our teaching support staff, and more Allied Educators in our schools will support teachers in their work.

64. SMS Fu's Committee will consult key stakeholders on how we can achieve a more holistic primary education, and work closely with them to develop more detailed recommendations and implementation plans to enhance primary education, including how we can move towards single-session primary schools and towards raising the minimum qualifications of new teachers.

65. Despite these heightened efforts and commitment of more resources, MOE and schools cannot accomplish these goals alone. Nurturing the next generation will take the combined efforts of all in society. We must work in concert with parents and other stakeholders.

66. The challenge in the next phase of development in education is to find the right balance that will enable us to impart a more holistic education to students of varying abilities, building on the strong fundamentals that are in place. To succeed will require all of us - schools and parents – to focus on other equally important areas beyond academic achievement.

67. I wish you a fruitful discussion at this year's Workplan seminar.