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Leader for  
Leaders Programme

Handbook for Participants

2005

# Leader for Leaders: Advanced Executive Programme for Senior Leaders in the Ministry of Education

## Contact details

This Leader for Leaders Programme is managed by the Graduate Programmes and Research Office, and all enquiries should be addressed to the Office as follows:

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## New leadership

The new and ever changing landscape in Singapore and the world has placed a premium on the need for high calibre educational leaders to lead the school system. In the Ministry of Education, Singapore there is a new call for educators to challenge prevailing assumptions and to redefine teaching and learning such as “Teach Less Learn More.” These new initiatives require a new way of looking at how leaders lead schools and the education system. The increasing levels of decentralization, autonomy for school leaders and calls for quality improvements and innovations point to the fact that we need a different calibre of educational leaders and thus a different way to prepare the training and development for such leaders. At NIE, we want to play our part by helping such leaders to move into the cutting edge of new leadership in education, so that they can heighten corporate capability in the educational system and take their operations into new realms of excellence.

You are one of these leaders and we welcome you to our programme. By being here, you are making two important investments: an investment in the improvement of any school system in which you will hold leadership responsibility; and an investment in your own personal career and development.

In your job as a senior educator, you inevitably face considerable demands at a time of fast-paced change. Our programme will help you meet those demands, and it will give you the satisfaction of knowing you have completed one of the most demanding learning challenges of its type.

You will find your learning experience at NIE relevant, because the programme is for Singaporean professionals. It is designed by NIE’s team of experts, professionals who have had considerable experience of working with school leaders. By consulting our partners at the Ministry of Education, we believe we have homed in on the issues that really matter. And because we also bring an international perspective to our programme, we are confident your studies will be at the forefront of leadership knowledge in this fascinating field.

During your time with us, you will be exposed to a vast range of ideas, and these will stem from various sources: Government Ministers, Senior Educational leaders, respected faculty members, corporate executives and leaders in the international setting. Your studies will come alive, because you will be engaged in professional dialogue with experienced and respected leaders.

It is a thoroughly intensive executive programme. That means you will have to work hard, but it will be fun as well as challenging. You will find the atmosphere friendly and stimulating, with opportunity to engage in dialogue with your fellow participants and with staff from both inside and outside NIE. This will open you up to different perspectives.

## **NIE: an Institute of Distinction**

Credibility is vital. We are Singapore's recognised premier centre for school leadership education and development. We have an enviable reputation both in Singapore and abroad for our research and teaching. Many of our staff enjoy international recognition for their work. They also understand the Singapore education scene. And to enhance your experience, we call on distinguished professors from overseas to evaluate our programmes and to advise on how we can keep this as one of the world's leading programmes of its type.

NIE, of course, is widely known for initial teacher education and in-service education. Over the years, NIE has been deeply involved in the training and development of school principals, heads of department, level and subject heads, and a range of other professional educators. Indeed, NIE plays a key role in partnership with the Ministry of Education in elevating the quality of leadership in Singapore's schools. The Leader for Leaders Programme is undoubtedly a new executive type programme, and you will find yourself in the public and professional eye throughout your time here.

## **Introduction to the programme**

This handbook has been prepared for you as a participant on the Leader for Leaders Programme. It contains most of the information you will need as you progress through the programme. For example, it explains in general terms what NIE's staff expect of you; and it gives an outline of the focus covered. It also explains, again in broad terms, how your work will be assessed and what you have to do in order to reach the required standard.

Most of the information you will need is presented in this handbook. However, you should read it in conjunction with other documentation you will be given, as that will provide details of the University's regulatory framework and many other items of valuable information. Similarly, in relation to the various focus areas, staff members will provide you with more detailed guidance and information.

You should find this handbook helpful, but if there is anything that you do not understand, you should contact the Graduate Programmes & Research Office. The contact details are at the front of the handbook. You will find both academic and administrative staff helpful and approachable, and it is important to raise your concerns early with those staff who can help: this will ensure that problems are sorted out before they become unmanageable.

At the time of writing, this handbook is accurate. Changes may occur during the academic year (such as changes in staff or focus area) and we shall do everything possible to keep you informed of anything that might affect you.

## Nanyang Technological University

Nanyang Technological University is a dynamic and expanding institution with an enviable record of academic achievement. Established in 1991, its mission is to combine general academic excellence with international eminence in selected areas of activity. The University's mission includes the aim to prepare leaders, professionals and entrepreneurs for Singapore and to advance research and development in both academic and professional disciplines.

The National Institute of Education, which is constituted as part of the University, shares fully in that mission, but has a primary concern to train teachers and school leaders to meet the needs of Singapore. It aims to equip education professionals with the knowledge and capability to operate effectively in an increasingly demanding educational environment.

The University's teaching style at post-experience level is friendly and informal, yet highly challenging. It emphasises the active and creative participation of students, some of whom have considerable service experience, in the learning process. This means that you can derive much enjoyment from your studies as well as the sense of fulfilment that comes with success.

Nanyang Technological University, with its expanding reputation at home and abroad, maintains a strong international focus and has an active policy of developing links and partnerships with prestigious institutions overseas. While the focus of our programme is essentially local, your learning is set in an international context, since that will help to ensure that developments in Singapore are at the cutting edge of knowledge in the field.

NIE has extensive involvement in research and the academic staff with whom you will come into contact are engaged in local and international research projects with practical significance to the work of teachers and managers in educational institutions.

### **The Graduate Programmes & Research Office**

Both you and the programme you are undertaking will be looked after by the Graduate Programmes & Research Office. Professor Lee Sing Kong is the Dean, and, with his team of professional and support staff, he is fully committed to ensuring that your experience at NIE is a profitable one.

Dr David Ng is the Associate Dean with specific responsibility for all leadership programmes, and he too will be constantly monitoring your programme to ensure it is meeting your professional needs.

Our office expresses its role in the form of a commitment: "We in the Graduate Programmes & Research Office make a commitment to promote the development of professional educators in learning, teaching, leading, research and innovation." We intend to stand true to that commitment.

## The programme

While many development programmes have been provided for teachers and managers in schools, very little provision has been made for those holding senior appointments (such as cluster superintendents) in the Ministry of Education. Yet, there is a clear need for development experiences that address the specific requirements of certain jobs. For example, if the superintendency is going to have a sustainable impact on schools in the future, then development is needed that specifically addresses the job of superintendent.

While there is much to be gained from generic experiences – often organized by providers outside education – there is a much greater need for development work designed and led by those who know education and understand the role of educators in senior positions. The executive training of senior leaders at MOE will require a combination of knowledge of the Singapore school system and an understanding of the challenges and opportunities of the changing landscapes. These requirements will necessitate a different platform of professional development. NIE is in an ideal position to take on this development work, because NIE staff members have both the sound theoretical and experiential understanding of providing this unique platform of professional development.

This executive programme for senior staff would build on the highly acclaimed Leaders in Education Programme (LEP) experience. Through the use of multiple learning approaches, participants will be highly engaged in creating new knowledge and leadership experiences. This executive programme for senior leaders in the Ministry of Education will be called Leader for Leaders Programme (LLP). The intended purpose of the programme being known as Leader for Leaders instead of Leader of Leaders is to keep abreast with changes in leadership thinking where leaders must discard the old bureaucratic manner of leading from the apex.

The superintendency has been with us for several years, and it is an appropriate time to both strengthen and reassess the role of superintendent. The programme, therefore, while helping incumbent superintendents to do their current jobs better, would also provide a unique opportunity to consider whether there needs to be a realignment of thinking in view of the fast-paced change and challenges faced by leaders. This would be possible through a stimulating learning agenda that takes into consideration the complexities of leading and managing and the importance of creating new knowledge in the process of stretching the mind.

### **Theme**

The theme for this inaugural programme is 'Stretching the Mind.' The thrust would be to challenge participants to think about how leaders think and not just on what and how they perform. It is also to enable participants to create new knowledge. The programme structure therefore,

must be highly engaging, challenging and interactive and must not revert to the didactic and transmission approach.

Innovation, ideas and creativity occur not in the formal but in the social organization. The social organization is a labyrinth of webs which form the relationships and interrelationships that leaders and managers and their teams have with others in the organization. These relationships though not formally charted, are powerful and important. It is within this context that the programme structure will be based on small group settings. In such a setting, new knowledge can emerge when coherent collectives arise through the interaction of individuals as they engage in activities, processes and dialogue.

### **The learning architecture**

In order to give you the capability to lead the school system to ever greater heights, the concept of knowledge generation must permeate our programme. Learning must be designed in such a way as to promote your learning through generating new knowledge. The architecture we have designed for high level learning relegates the importance of 'content' to a supporting role and elevates the significance of knowledge creation. Thus, surfacing new knowledge of leadership, and process-as-content curriculum is the means by which learning takes place. A process-as-content curriculum provides opportunities for you, as senior educational leaders to be analysers, problem-solvers, consensus builders, decision-makers, compromisers, arbiters, creators of new knowledge and information gatherers. Your learning experience throughout the programme will require you to apply appropriate processes to resolve real-world situations rather than to base them on hypothetical scenarios.

The following section describes the learning architecture in detail:

### ***Syndicate-based learning***

You will be assigned to a syndicate setting (a small group led by a faculty member). Learning and knowledge emerge both in individual and in social relationships. In complexity science, learning requires the individual to internalize those social relationships. It needs to be stressed that this is a very different notion of the learning in the mind as that described in cognitivism, humanistic psychology, and psychoanalysis. The individual mind is not primary and prior to the group. Instead, the individual mind and the web of relationships that are a group are emerging simultaneously. Individuals are forming and being formed by the group at the same time. Therefore in a small group setting, the interactions within the social setting become an important medium for knowledge creation.

Conversations are complex responsive processes of themes triggering themes through self-organising association and turn taking that both reflect and create power differentials in relationships. These conversational processes within the group result in a continually emerging of the minds of the individual participants and at the same time the group phenomena of culture and ideology. Individual and group phenomena emerge together in the same process, co-creating each other. This is a very radical view of the

nature of the relationship between the individual and the group. It is saying that change in the behaviour of a group and change in the behaviour of individual members is exactly the same phenomenon. Furthermore, it is saying that change can only occur when the pattern of conversation changes because it is this that organises their experience.

### ***Making connections: learning from other industries***

Many programmes across the world help their participants to develop knowledge and skills within the same field and for the present situation based on an assumption of stability. Such programmes may perpetuate the same 'genetic' frames of management and leadership from the same field. In addition, they may have little to do with a turbulent future or with innovation. In other words, the focus is on a set of skills and tasks required to operate the current stable system better. But this does not bring about a different system, which is pivotal to our concern for meeting the needs of a fast changing environment.

In this programme, you will discourse with other leaders in various fields and industries both locally and internationally. This dialogue will enable you to create new knowledge and to repackage knowledge in order to produce useful results. You must become *innovators*. We are in a knowledge-driven economy. You must thus learn to put new knowledge into schools. You must lead school principals to create schools of the future and to facilitate them to do new things and find different ways of doing existing things.

### ***Content as learning support***

The content design supports the in-school learning. It thus follows that content will provide the platform for generative conversations.

At the same time, the content agenda aims to provoke thinking in several areas. These areas are all related to the new context of ability-driven education and beyond. We have already outlined above the changing context for school leadership, a context in which innovation plays a crucial part. The new agenda, therefore, demands a new type of educational leader, one who can lead proactively within a dynamic, complex and sometimes uncertain context. Indeed, knowledge work, by its very nature, contains complexity, ambiguity and uncertainty. In such a context, the leader must be able to actively create the architecture for the future that enables the organisation to do new things, continuously learn, and change things for the better. This new leader invests resources in innovation during the period of incubation in order to enjoy the fruits of outcomes that are well received by the system's external environment. This leader exposes assumptions about key strategic issues and harnesses the knowledge derived from multiple mental pictures. The leader interprets complexity as a force for organisational excellence and identifies the areas of highest leverage.



## ***Reflective Seeing***

And while each of our leaders has a unique legacy, they are all remarkably alike in their ability to translate their experiences and relationships into one or more of the five following inner thought patterns, which they found central to their success as leaders:

- Reflection: the capacity to examine and appraise their own behavior and impact on others
- Framework: the strategy of interpreting negative events with a resilient inner narrative and response
- Attunement: the practice of setting aside assumptions, reversing roles, and learning from every person in the organization
- Conviction: the ability to trust, value, and speak from their own experience
- Replenishment: the craft of counterpoint, that is, restoring perspective and renewing resources

Participants will go through a series of workshops to surface the inner thoughts of their leadership.

## **Attendance and study expectations**

This is a full time executive programme and you will find your entire working week devoted to work on the programme.

If you require leave of absence for any reason, you must write to the Associate Dean for Leadership Programmes, giving reasons and including any necessary documentation.

This is an intensive programme and you will necessarily engage in considerable amount of study. Such study, of course, encompasses all activities connected with your programme. It includes attendance at seminars, syndicate contact time, reflection, international visit, reading and the writing-up of the assignment.

## **Assessment**

Participants will be assessed on their ability to redefine leadership thinking, stretch their mind and to develop a conceptual framework with one-year action plans of leading school leaders to create the future of schooling.

NIE will review these action plans with the participants at the end of one year.

## The programme's staff

NIE has an enviable reputation in the field of initial teacher education and in-service education. Over the years, NIE has been deeply involved in the training and development of school principals, heads of department, level and subject heads, and a range of other professional educators. Indeed, NIE plays a key role in partnership with the Ministry of Education in elevating the quality of leadership in Singapore's schools.

The programme is led by the Graduate Programmes & Research Office, and the person in charge is Dr David Ng, who is Associate Dean for Leadership Programmes. With his team of support staff, he looks after all programmes connected with school leadership and is responsible for ensuring that you enjoy a high quality professional experience during your time at NIE.

Those academic staff members most closely involved in your programme are:

Dr Joy Chew is Associate Professor in the Policy and Leadership Studies Academic Group. She trained as a sociologist at the University of Singapore and obtained her PhD in Sociology of Education from Monash University in 1988. Her specialist areas of teaching and research are: education policy implementation, curriculum design and leadership, sociology of schooling and values education. She has been actively involved in the design, curriculum review and delivery of Education Studies courses in the pre-service programmes at the National Institute of Education. Together with a multi-disciplinary team of academics at Policy and Leadership Studies Academic Group, she contributes to the conceptualization and delivery of executive leadership courses such as the Leaders in Education Programme, the New Diploma in Departmental Management Programme, and Leader for Leaders Programme.

Dr Low Guat Tin is an Associate Professor in Policy and Management Studies. Her basic training is in school psychology and she moved on to study educational management at The University of Michigan. She has consulted with many organisations and conducts seminars in various countries. Her expertise is in human resource management. She has written a number of books and articles on various areas, including management and living creatively. Her research areas include women in leadership, learning styles, mentoring and motivation.

Dr David Ng Foo Seong is Associate Dean for Leadership Programmes in the Graduate Programmes and Research Office. His areas of specialization include principalship, school leadership, curriculum management and leadership, and learning technology such as computer simulation programming, intelligent tutoring system design and programming. His research interests include school reform, organizational culture and the design of intelligent simulation systems and their impact on knowledge acquisition. He has also served as a Vice Principal in a secondary school for three years.

In this programme, participants will also have the opportunity to meet and discuss with faculty members from other universities, MOE leaders, and business leaders.

## Content Areas

### **Challenges, Opportunities in the Knowledge-based Economy**

The pace of change at the beginning of the 21<sup>st</sup> century and the shift towards a knowledge-based economy has caused a post-modernist crisis in many schools. Who are we? How do we define ourselves? How do we compete? These questions have come to underlie organizational strategy and the need to create niches and identity. They evidence themselves in the day-to-day language used within the organization.

The challenges and opportunities in the knowledge-based economy will require new ways to rethink about leadership and managerial activities. The increasingly greater complexity in the organizational and educational environment, as it is perceived by leaders, will require leaders having to lead and manage in an ambiguous environment, with constant change and multiple mandates. Getting 'things done', leaders argue, will become increasingly difficult. Instead, leaders must move beyond to the level of seizing new opportunities and leading the schools in different ways.

### **Invited Speaker**

Minister for Health: Mr Khaw Boon Wan

### **Leading the Leaders**

The role of Superintendents is revisited to ensure that all participants are clear of the part they play in our education system as well as their relationship with the School Leaders. Leadership thinking almost always has indirect effects on such basic organizational outcomes as the goals schools aspire to for students and meeting the needs of the nation. Ignoring one of these aspects will mean an incomplete picture of good leadership. Indeed, it might be claimed that for superintendents, leading and influencing school leaders in their cluster that will in turn impact on "the bottom line" is their major challenge. In view of the demands of the system and the increasingly complex changes that schools face, there is a therefore a need to rethink how superintendents lead school leaders.

### **Invited Speaker**

Director of Schools, Mr Wong Siew Hoong

### **The Future of Schooling**

The challenges and opportunities that are presented in the knowledge-based economy not only require a new way of thinking about school leadership but also about schooling or the bottom line – student learning.

From the perspective of the superintendency, the need to understand the importance of creating the future of schooling is as crucial as being able to transform schools to meet current challenges. The future of schooling

will need leaders to challenge current assumptions of teaching, learning, school structures, assessments, and school governance. The very heart of schooling will be reexamined and challenged for there is no more the adage of doing business the normal way.

### **Invited Speaker**

Dean of Centre for Research in Pedagogy and Practice: Professor Allan Luke

### **How Leaders Think**

Successful leaders rely on a complex blend of knowledge, competency, disposition and values in their work to lead, influence and improve outcomes. As such, there is a need to create opportunities for participants to dialogue with other leaders. This learning environment will significantly impact the quality of their contributions as leaders and help shape the new landscape of education in Singapore

### **Invited Speaker**

Chief Executive Officer for Standard Chartered Bank, Singapore: Ms Euleen Goh



## Annexe 1 Referencing style guide

### **Acknowledging sources: lists of references**

When preparing an assignment, report, essay or dissertation, you will need to consult the published literature: books, journal articles, conference reports, and other forms of writing. **Your completed written work must acknowledge the sources from which you have obtained your information.** It is important that you refer to any authors whose work or ideas you have used, even if you do not quote or paraphrase their writing.

In order to maintain consistency in the National Institute of Education, this guide is based on the style used in the *Asia Pacific Journal of Education*, of which the Managing Editor is Associate Professor Gopinathan. This document provides guidelines on how to cite (refer to) those sources of information in your final text and how to compile a list of references.

### **What is a references list?**

A references list or section is a compilation of relevant works consulted during the preparation of an essay, project or dissertation. It must include all the publications quoted from or referred to in the text.

### **Why is it important?**

- To acknowledge debts to other writers.
- To demonstrate the body of knowledge upon which your research is based.
- To enable all those who read your work to identify and locate your sources easily.

### **How do you compile your list of references?**

Keep a list of the full details of every work consulted during your research. For a book, the full details would include the authors' names and initials, year of publication, title, publisher, location of publisher, and the relevant page numbers. You will see from the examples in the section entitled *Reference Lists: General Principles* the items of information that must be gathered about other forms of publication.

Index cards are useful for this process, as new items can be added into an alphabetical sequence without much inconvenience. Alternatively, you can keep a database on your computer.

### **How do you arrange the details?**

The list of references should be in alphabetical order.

Where several authors have the same surname, initials determine the alphabetical sequence.

Where there are two or more works by the same author, the references to that author should be arranged in chronological order.

Works by more than one author are entered under the name which first appears on the title page and are listed after works written or edited independently by this author.

## Citations in the text

Citations within the text direct readers to the list of references at the end of the text. The author's **surname**, **year** of publication and **page number(s)** should appear in the text. (While the usual requirement is to provide page numbers only for a direct quote, you must get into the discipline of showing page numbers to make it easy for the reader to locate your source.) If the author's name does not form part of the statement in the text, put name, date and page number in brackets.

There is evidence (Smith, 1990: 23) that the statistical analysis is unsound.

If the author's name forms part of the statement, put the date and page number in brackets:

Smith (1990: 23) has provided evidence that the statistical analysis is unsound.

If there are two authors, the surnames of both separated by "&" should be given before the date:

Evidence was provided that the statistical analysis was unsound (Smith & Jones, 1990: 64).

In the above example, the ampersand (&) was used because the names were inside the brackets. If they were in the text itself, you would use "and":

Smith and Jones (1990: 64) have provided evidence that the statistical analysis was unsound.

In the first citation of a work with three to six authors, give the surnames of all authors (order in which authors are given is that of the title page), separating the names of the authors with commas, except the final two names, which should be separated by "and".

Smith, Jones and Lee (1990: 87-94) have provided evidence that the statistical analysis is unsound.

If the names fell within the brackets, you would use "&" instead of "and".

Subsequent references should be in abbreviated form, the surname of the first author followed by *et al.*

Smith *et al.* (1990: 102) again questioned the analysis and the authors' interpretation.

For a work with six or more authors, give only the first author's surname followed by *et al.*

## Secondary sources

Citing the work of one author found in the work of another.



Supporting evidence appears in a study by Black (cited in Smith & Jones, 1990: 64).

You should acknowledge that you did not consult the original source; "cited in" indicates that the references to Black's study can be found in Smith & Jones. Include only Smith & Jones in the list of references.

### **Articles in edited works**

Cite under the name of the author(s) of the paper; not under the name of the editor.

### **Works published in the same year by the same author**

If an author has more than one publication in the same year, suffixes "a", "b", etc are added to the year. Both date and letter are used in citing the source.

Smith (1990a: 23) has provided evidence that the statistical analysis is unsound.

### **Quotation marks**

Quotation marks are used to enclose direct quotations from speech and writing. Quotes of less than three lines can be included in the text.

Smith (1990: 23) concluded that "there was a fundamental discrepancy in the original data".

Do **NOT** use quotation marks for longer quotations. Quotes of more than three lines should be separated from the text and indented.

Smith (1990: 23) claimed:

The original data was largely flawed because inappropriate methodology had been used. The researchers chose to employ a long and complex questionnaire, to which there had been an insufficient response. More appropriate would have been the use of observational technique, which could have been supported by semi-structured interviews.

### **Reference lists: general principles**

The following examples (based on the Asia Pacific Journal of Education) provide templates on which you can base your referencing. In some cases, you may have to combine examples. Look carefully at what is italicised and what is not, at where commas, full stops, commas and brackets are used, and at the application of initial capitals to some titles but not others. There are many referencing styles in use, as a glance at a range of journals will show, but, for this programme, you must standardise your work according to this guide. We show the order of details first, followed by an example.

### **Books**

- Author
- Date of publication

- Title (italicised)
- Place of publication and publisher.

Claxton, G. (1990) *Teaching to Learn*. London: Cassell.

Rogers, C., Altman, F. & Daley, P. (1983) *Schools at Work*. London: Bell and Howell.

### Chapters in books

- Author of chapter
- Date of publication
- Title of chapter
- Editor, initials first (followed by Ed. Or Eds. in brackets)
- Title of book (italicised)
- Place of publication and publisher

Higginson, G. (1990) A levels and the future. In G. Parry & C. Wake (Eds.) *Access and Alternative Futures for Higher Education* (2nd Ed.). London: Hodder and Stoughton.

Brown, J. & Armstrong, M. (1986) Transfer from junior to secondary: The child's perspective. In M. Youngman (Ed.) *Mid-schooling Transfer*. Windsor: NFER, pp.23-47.

### Articles in journals

- Author(s) of article (surname first)
- Date of publication (in round brackets)
- Title of article
- Title of journal (italicised)
- Volume number
- Issue number (if any) in brackets
- Page number(s)

Hyland, T. (1993) Professional development and competence-based education. *Educational Studies*, 19 (1), 123-132.

Putnam, J. & Lee, D. (1985) Applications of classroom management research findings. *Journal of Education for Teaching*, 11, 145-164.

### Newspaper articles

- Name of author(s). (If no name given, miss this out, and start with article title)
- Year (in brackets)
- Title of article
- Name of newspaper (italicised)
- Full date of publication
- Page number(s)

Lee, P. (1995) Mr Patten's question paper put to the test. *The Guardian, Guardian Education*, Tuesday, 8 June 1993, 2.

### **Thesis**

- Author
- Date (brackets)
- Title (italicised)
- Thesis details (Ph.D., M.Ed. etc)
- University or institution

Blanchard, J.A. (1990) *The Meaning of Curriculum Development and the Role of the Outsider*. Unpublished doctoral thesis, University of Southampton, School of Education.

### **Government circular**

- Government Department
- Date (brackets)
- Title (italicised)
- Circular details
- Place of publication
- Publisher

Department of Education and Science (1989) *The Education Reform Act 1988: School Curriculum and Assessment*. Circular 5/89, London: HMSO.

Central Advisory Council for Education (England) (1967) *Children and Their Primary Schools*. [Plowden Report], London: HMSO.

### **Conference paper**

- Author
- Year of conference
- Title of paper
- Paper presented at...insert details of conference, including location and date

Peters, T. (1990) Reconceptualising research methods in contemporary management. Paper presented at the Australian Educational Administration Society annual conference, Melbourne, April.



## Annexe 2 Article

This article is reprinted with the kind permission of the Civil Service College. It was first published in the July 2000 edition of Ethos.

### **Enter the Innovation Paradigm**

Urgency and survival were the primary forces that drove the “paradigm for efficiency”, which determined the Government’s approach in the past to creating and sustaining an environment conducive to business. However, such an approach may not work as well in the new economy. An Administrative Officers’ Project Team<sup>1</sup> was commissioned to examine and recommend how the Public Service can move away from the “paradigm for efficiency” and encourage the “paradigm for innovation,” not just for the Public Sector, but also for Singapore society at large. The following are extracts from their report.

For the last two decades, Singapore had operated on the paradigm of efficiency and quality with great success. Talents were recruited and developed for leadership positions. Fundamental innovations - in housing, transport, and CPF policies - were achieved through strategic thinking at the top and supported by the public service and other grassroots structures that designed good systems to achieve results. This efficiency paradigm was based on a “Strategy-Structure-Systems” model.

Given Singapore’s limited size and resources, efficiency and long-range planning will remain at the core of how we function. However, the future will be more complex, unpredictable and competitive. Competing on efficiency and quality alone will not be enough. These are now basic requirements. We have to compete by creating value, through new ideas and innovation. Similarly, in tackling increasingly complex social issues, we need to tap the innovative ability of a large base of active citizens.

### **What is Innovation?**

Innovation is the new economy driver that creates value, through new ideas and talents. And innovation knows no bounds. It can be tapped from the innovative abilities of a large base of active citizens when dealing with complex social issues.

To innovate is to generate value-creating ideas and implement them to realise their value (whether economic or intangible). The innovation process has three stages: idea generation, experimentation (evaluation/ refinement/ prototyping), and implementation (commercialisation/ operationalising). But these are not rigid, linear steps. The innovation process involves an open and flexible attitude towards trying, experimenting and learning.

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<sup>1</sup> The Project Team comprised Mr Heng Swee Keat as Team Leader; Ms Chan Lai Fung; COL Chua Chwee Koh; Mr Gerald Heng; Ms Sandy Ho; Ms Kong Kum Peck; Mr Lee How Sheng; Ms Carol Liew; Ms Lynn Ng; Dr Ong Toon Hui; Mr Calvin Phua; Ms Teoh Zsin Woon; and Mr Wong Hong Kuan.

## Visions of an Innovative Singapore

How do we achieve visions of an innovative Singapore? One possibility is to model Singapore after Silicon Valley, and position Singapore as an incubation centre for start-ups and high tech ventures. Alternatively, Singapore can become a centre of innovation for economic activities such as financial services and e-Commerce.

Yet, an innovative Singapore is not just a static goal to be achieved. It is much more dynamic than that. The essence of an innovative Singapore lies in a spirit of innovation that permeates every level and in every sphere of activity. It embodies a spirit of enterprise that displays innovative depth, and allows it to build innovation as a systemic capability across a range of activities.

Innovation should not be limited to just the economic sphere or a narrow band of top talent. Singapore's small talent pool is a limitation. But we have more than compensated for this with our willingness to learn and to operate as a team. By developing the appropriate cultural orientation, the total innovative capacity of our people can be considerably enhanced.

## Determinants of National Innovative Capacity

How do we make individuals, organisations and society more innovative? The innovative capacities of individuals, organisations and society depend on the 3 'M's: *Motivation, Mental Capacity and Management Capability*.

*Motivation* is the willingness to try, the desire to make a difference, to challenge the status quo, and to succeed.

*Mental Capacity* refers to the talents, creativity, and breadth and depth of the knowledge base.

*Management Capability* refers to the capability to implement changes and to see them through.

An individual's innovative capacity stems from a drive to want to make a difference, to question the status quo, the creativity to pursue expanding possibilities.

At the organisational level, the imperative to innovate can come from both its leadership and the competitive environment. Jack Welch's transformation of GE is an excellent example of the former.

The 'mental capacity' of an organisation refers to both the quality of people within it, their attitude towards innovation and the breadth and depth of the knowledge base. 3M and Sony exemplify organisations which have a strong intellectual base of innovative capacity built around its people's talent and knowledge.

Finally, the management capability to commercialise an innovative product process and to sustain its competitive edge determines whether a good idea remains as just an idea, or reaps significant rewards.

Innovative organisations are hence those that are adept at tapping the talents and knowledge of their members. More importantly, they provide the right support and environment to fully utilise the capacities of different

individuals. These individuals are not just top scientists or engineers but personnel from every level. This creates a culture that facilitates change in the organisation, and is crucial for innovation.

## Mindsets for an Innovative Society

Before we can effect change at any level, a transformation of mindsets is necessary. One must have some key beliefs about people and organisations before progress can be made to increase innovative capacity. For individuals, leaders must believe that

1. **Everyone has talent and ability.** Individuals may not have the talent in the same field, nor to the same degree. Nevertheless, each individual, graduate or not, CEO or frontline worker, has something to contribute.
2. **People want challenge in their life and recognition for what they do.** People want to contribute and feel that their contributions matter. Hence, they can be motivated to contribute to a worthwhile higher purpose, beyond their personal self-interests.
3. **People want to improve themselves and can do so.** People want to pursue improvements in their own way in line with their abilities. They can improve given time, opportunity and training.

For the organisation and management, the key beliefs are:

**Everyone thinking and doing will achieve more than a few thinking and doing.** To succeed, an organisation must successfully leverage on the diverse knowledge, skills, experiences and judgment of all individuals within the organisation. Even those in relatively humble jobs help to improve the overall work environment.

2. **Individuals best realise and maximise their creative value through collaboration with others. Collaboration may vary from a network of relationships to an integrated organisation.** Organisations need to create conditions for collaboration and integration among individuals, and across organisations. It is not enough merely to develop creative individuals. The more effectively an individual can tap on and leverage the resources around him, the greater his innovative capacity.
3. **The manager's role is to facilitate and allow his staff to optimise their innovative capacity.** The manager's role is not to control and dictate what should be done. Instead, he instills a sense of purpose and develops the framework and processes within which new ideas, experiments and change can happen.

## Envisioning for Success – Implementing the 3 'M's

If a leader acts on the belief that everyone has talent and wants challenge in their work and recognition in what they do, he will seek ways to enhance and nurture this powerful motivation. He would, for instance, be inviting them to give their ideas, to pursue their passion and satisfy their curiosity. In turn, people will strive to be the best they can be when society sees them as individuals worthy of respect. They would not allow their self-

worth to be determined by narrow criteria such as academic excellence or wealth. Such individuals take personal responsibility for their work, employ initiative, and direct their own learning.

Accordingly, leaders need to respect, develop and deploy an individual based on his uniqueness, interest and strengths to tap their knowledge and expertise. Leaders should also encourage curiosity, experimentation and willingness to learn. This would allow them to expand the breadth and depth of knowledge, for the greater good of the organisation.

Organisations provide individuals with the vehicle to realise creative ideas, and collaboration is necessary to bring innovation to fruition. Organisations thus need to recognise that EQ in individuals and good social processes in organisations are necessary to promote collaborative learning and innovation. These qualities will help to maintain a balance between individual creativity and idiosyncrasies and the discipline of teamwork and systems to refine and realise ideas.

When leaders believe that everyone thinking and doing will achieve more than a few thinking and doing, the organisation develops the capacity to encourage new ideas and innovation at all levels.

Conversely, a society that defines success narrowly will channel individuals into accepted routes or moulds. Such a society would not allow members the freedom to pursue their dreams as it disapproves of risk-taking. A society that accepts trying and experimentation as part of the learning process will instead provide the space for such learning. True failure in such a society is thus not seen as failing to succeed but failing to try.

### **Merging the Hard and the Soft Approach**

To bring about an innovative society, we need to complement the 'hard' factors (3 "S" factors - structure, systems and strategy) with the 'soft' factors (3 "P" factors – people, purpose, process)<sup>2</sup>.

The 3 hard 'S' factors include the *structure* of industry and sectors, the degree of competition, the *systems* of risk and rewards, stock options, taxation, financing methods, bankruptcy laws, etc., and *strategic* plans such as policies on R & D, and promotion of technopreneurship. These hard factors are amenable to control and rapid changes, through the investment of resources in infrastructure and changes in rules and regulation.

In the soft management approach, a leader acts with the mindset that *people* have talent and seek challenge. He will therefore seek their ideas, allow them to experiment and deploy everyone to the best advantage. He must also ensure that those who do not contribute do not jeopardise the efforts of the rest, but must not assume that everyone is like that.

The role of leaders at every level would be to energise people with a compelling vision of the overall *purpose*, and how their contributions fit into the larger whole.

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<sup>2</sup> "The Individualised Corporation" by S Goshal and CA Bartlett.



To maximise innovative capacity through collaboration, *processes* are also needed to promote teamwork and to harness the best of each individual at every level. A free flow of ideas is to be encouraged across organisations (from both the public and private sectors), while maintaining the right balance of competitive and collaborative instincts.

The Public Service must persist in its commitment towards innovation, by continuing to nurture a culture of creativity and experiment within and outside the Public Sector, and must encourage and engage the full potential of the innovative ability of our citizens. Efficiency and strong leadership, while crucial, can no longer be a guarantee of success for Singapore. In the cut and thrust of today's globally competitive environment, and in the midst of an increasingly complex society, a paradigm for innovation is vital for Singapore's continued survival.

### **Some Key Observations about Innovation**

- 1. Innovation is not just about creativity.** It is also about implementation through discipline and perseverance. An entire chain of activities is needed to 'cash in' on a creative breakthrough.
- 2. Freedom per se does not guarantee innovation.** Neither does a permissive society. A society can be socially conservative yet economically liberal and innovative.
- 3. Innovation is rarely created by a "lone inventor".** To realise an idea requires a network of resources and collaborative relationships. That's why the majority of innovations still take place at the core and in established firms, and not just in start-ups.
- 4. Innovation need not be technical or high-tech in nature.** It can occur in public and private sectors, even at your neighbourhood store.
- 5. Innovation is a social phenomenon.** It occurs when people think up new ideas, accept these new ideas and work together to realise these ideas. It is about mindsets and social processes.
- 6. Innovation need not involve quantum leaps.** Incremental and quantum improvements, process and product innovations all create new value.

## Annexe 3 Article

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### **New Economy Vision and Innovation**

Much has been said about the emergence of the New Economy, characterised by revolutionary technological advances, where risk and uncertainty are expected, and where rules of the game are constantly rewritten.

The Institute of Policy Development organised two lectures that explore the implications of the New Economy for Singapore: "The Innovation Revolution – New Insights for the Millennium" by Professor Peter Williamson in January, and "A Vision of the New Economy" by Mr Christopher Meyer in April.

Mr Meyer is the Director of the Center for Business Innovation, President of BIOS GP, a venture company, and a Partner in Ernst & Young. The co-author of two books entitled, *Blur – The Speed of Change in the Connected Economy* (1998) and *Future Wealth* (2000), he shared his insights on the forces at work in the New Economy.

Professor Williamson is the Chairman of the Strategos Institute, a consortium of companies which helps organisations develop strategic innovation. He is also the Visiting Professor of International Management at the INSEAD Euro-Asia Centre and author of four books, including *Managing the Global Frontier*. His lecture addressed the role of strategic innovation in the New Economy and the need for organisations to manage innovation through a systematic and disciplined approach.

This article summarises the key points of both lectures.

### **The Context Of The New Economy**

According to Mr Meyer, the New Economy has evolved in a context speedy evolution of business, largely due to the wide usage of the Internet in business transactions. Businesses have to constantly keep abreast of the changes within the economy as failure to do this would place them at a definite disadvantage. Three forces drive the New Economy and these are *speed, connectivity and intangible value*.

#### **Speed**

Internet businesses are sprouting up at an immense rate. This means that as the product cycle gets shorter, things move so fast that stability cannot be assumed for any period of time.

#### **Connectivity**

Connectivity is fundamental to how firms and institutions are designed in the future. Today, communication barriers including language are being eradicated rapidly. In the world of IT, we are quickly moving from the data processing infrastructure of mainframes and isolated personal computers to the connected infrastructure.

Connectivity in the New Economy implies that any information can be made available anytime, anyplace and at low cost. To foster customer loyalty, it is possible for businesses to keep track of details such as tastes and preferences concerning each individual customer.

### **Intangible Value**

Intangible value refers to the service component of products or the service factor of information businesses, whose values and benefits to consumers cannot be easily quantified. Intangible capital has become as important as tangible capital, and a greater share of the value of tangible capital is based on intangible inputs. As evidence of this, the economic output of the United States economy, measured in tons, is roughly the same as it was a century ago. Yet, its real economic value has increased by 20 times, the result of intangible attributes added to goods and services.

In the New Economy, the three forces of speed, connectivity and intangible value substantiate one another and form an integrated system. To give an example, Mr Meyer cited the case of Onstar, which is an Internet-based company. Onstar provides a service which has the potential to save lives in car accidents. In an accident, a device in the customer's car transmits a signal to Onstar's helpline. Upon receiving the message, Onstar attempts to contact the customer by mobile phone. If no response is received (indicating the customer is seriously injured), Onstar calls an ambulance immediately to where the device directs them. In this way, a system of connected networks is used to deliver information speedily and the customer benefits from quicker medical attention.

### **Business Behaviour in the New Economy**

In the New Economy, physical assets become liabilities, having been replaced in strategic importance by human knowledge. Businesses will spend more money on developing flexibility and exploiting new forms of capital such as intellectual and human capital.

As the economy gets increasingly intangible, both product and service converge towards software. Even services are 'productised' through the use of software. The work of a pharmacist is a case in point. PCS Pulse Systems now has software that dispenses drugs. The system can be updated easily when new drugs are introduced in the market, thus saving the cost of training pharmacists around the world. In the New Economy, almost everything will be replaced by software, since software can be upgraded.

The implication of this is volatility of markets and network systems. Incremental market shares will be replaced by a winner-takes-all market. To deal with this, businesses need to put in place a cycle of learning, customising, anticipating, filtering and upgrading. The New Economy hence places a premium on the ability of organisations to innovate, continuously learn, and productively change.

### **Innovation Can Be Systematic**

Like Mr Meyer, Professor Peter Williamson believes that in the New Economy, it is insufficient for organisations to merely improve upon what

had been done previously. There is a need to compete by doing things differently in order to win. His lecture on "The Innovation Revolution – New Insights for the Millennium" elaborated the importance of innovation in today's organisations.

While most organisations value innovation, many have failed to fully harness its potential since they do not have an active and systematic way of bringing innovation to fruition. Professor Williamson believes that the innovation process can be made more efficient and effective through a disciplined approach. The following are ten strategies which he puts forward to help organisations build their capability for innovation:

- Seek innovation at the level of the business model
- Listen to new voices
- Envision the future and set out to create it, starting always with the customer in mind
- Attempt a divergence of ideas, then a convergence
- Use multiple lenses to generate new learning and opportunities
- Create a portfolio of options on the future
- Move opportunities through the innovation pipeline
- Evaluate new opportunities using different criteria
- Entrench the practice of innovation through constant practice
- Instil a passion for creating the future

Innovation needs to be applied to all dimensions of the business model and not just to technological innovation. It is also not exclusive only to people at the top of organisations. While senior management is traditionally responsible for strategy, in the New Economy, organisations need to get all of their people passionate about innovation.

There are many techniques to help staff develop new ideas. For instance, they could be encouraged to become actively involved in creating the future, instead of simply accepting it. They should be encouraged to break out of conventional modes of thinking and think "out of the box" as much as possible. These ideas are later synthesized, or converged, in order to progress from ideas to action.

The process of managing innovation also involves creating a portfolio of different options. The first portfolio is one of ideas, followed by experiments, different ventures and finally scaling up into significant businesses, or in the case of the civil service, activities and projects. This innovation pipeline needs to be actively managed.

In managing the pipeline, organisations have to accept that in an uncertain world, not every idea, experiment or venture will scale up into a successful business. They should, instead, take the performance of the portfolio as a whole and on average, find enough ideas that will work and become true innovations.

Real progress in innovation does not come from classroom training or random brainstorming. Rather, it comes from learning by doing, integrating the change process, facilitating discovery and using proven tools and methodologies.

Finally, innovation is measurable. Organisations need to evaluate new opportunities by asking questions such as “does the innovation create new rules or new space?” or “does it overturn conventions?”.

### **An Entrepreneurial Public Service**

Both Mr Meyer and Professor Williamson assert that change in the New Economy is not incremental but revolutionary and call for organisations to continuously innovate. Both speakers also affirm that governments play an important role in the New Economy. Firstly, the government could facilitate innovation by creating an environment of diversity and opportunity to nurture entrepreneurship. Secondly, it could lead the way by demonstrating in its own organisations how sustained innovation and adaptation can be managed to achieve results.

### **Shell’s Innovation Architecture**

Shell has instituted processes to harness its innovative capabilities. To manage ideas and experiments successfully, Shell set up the ‘game changer process’, managed by six full-time panel members.

Incentives encourage employees to submit their ideas. For example, innovators are granted budgets of up to US\$15,000 and allowed to set aside 10% of their working time to develop their ideas.

Over time, the database of ideas grows, and an instituted system ensures that no idea is wasted. Ideas considered “unripe” are returned to the database until such time as it can be used or recycled, possibly with future ideas, to yield results.

Shell also introduced “let’s do it” days, encouraging anyone with ideas on strategic issues or specific problems to share them. The day ends with the allocation of budgets and the setting up of teams to examine the best ideas offered. Action labs are then set up to achieve three things. The first is to make the ideas concrete, by translating them into visual forms such as videos. The second is to build business models around these ideas and the third is to design 100-day plans to experiment and prove the ideas.

When the ideas have been proven, they become concepts and are ready for transition to the venture stage. Shell identifies launch customers at this stage and tests the concepts in terms of technology and resources, and when the benefits could be realised. It also establishes teams with the right mix of skills to put the concepts through to the operational stage and identifies alternative ways for capturing value. Finally, the ventures are managed as eventual mature businesses, with Shell’s goal to scale them up over time.