THE ROLE OF HEADS OF DEPARTMENT IN

CLUSTER SECONDARY SCHOOLS IN

SINGAPORE

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ABSTRACT

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TITLE: THE ROLE OF HEADS OF DEPARTMENT IN CLUSTER SECONDARY SCHOOLS IN SINGAPORE

This study investigated the role of heads of department in Singapore cluster secondary schools against the backdrop of a major educational reform in the Singapore education system namely the implementation of the School Cluster system in 1997, and a host of new initiatives including self-appraisal of schools and performance appraisal in the education service. Heads of department in a school cluster participated in a questionnaire survey, and the findings were triangulated with data from interviews as well as documentary analysis. The study found that external educational policy changes such as the School Cluster system have transformed the management of schools with the formation of administrative school clusters and expanded the scope of the middle managers' role with the creation of a collaborative cluster role for heads of department; and changing expectations in the internal appraisal of schools and the performance management of education officers have resulted in increasing emphasis on the leadership role of heads of department. However the increasing demands and expectations on the role of heads of department have not been matched with a corresponding increase of time and adequate training and professional development for heads of department to effectively carry out their role. The study has incorporated the findings within the unique internal and external contexts in which heads of department operate to propose a Singapore model of the role of heads of department in cluster secondary schools The model which has used contingency theory in explaining the work that heads of department do and built its components on the impact of recent policy changes in the Singapore Education Service provides a snapshot of the scope and complexity of the heads of department's role and its key determinants.

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CHAPTER 1: INTRODUCTION

1.1. Introduction

The evidence from research on school effectiveness and school improvement (e.g. Sammons *et al* 1996; Harris *et al*, 1995) seems to suggest strongly a need to move away from seeing the performance of the school as a single unit, to examining its effectiveness at different hierarchical levels (Brown and Rutherford, 1998). Huberman (1993, p. 45) refers to what he calls a 'goofy logic' in using the school building as the only unit of analysis when we talk of large numbers of teachers of different subjects in one building teaching a much larger population of students of different grade levels in separate classrooms. This being the case, with reference to the UK context, Busher and Harris (1999, p. 305) think that it is more useful 'to reconceptualise school leadership more broadly to include leadership at middle management level' as well. In the Singapore school context, the middle manager is the head of department. His role is 'hermaphroditic', neither fully a teacher nor fully an administrator (Siskin, 1993). This study has been designed to investigate the role of heads of department in Singapore schools as interpreted by the practitioners themselves, against a major organisational change in the Singapore school system. The change in question is the implementation of the *School Cluster* system, which was initiated in 1997. This major educational reform is explained in the organisational context of the Singapore education system in the following section.

1.2　The Background of the Study

1.2.1　Singapore's Education System

The Singapore education system is still centralised despite initiatives to move towards a more decentralised system. The *School Cluster* system implemented in 1997 is one such initiative. Primary and secondary schools come under the purview of the Ministry of Education. The schools vary in size with 'small' schools generally characterised by an enrolment of less than 1000 pupils and 'large' schools with more than 1000 pupils. For example a very 'large' school would be one with about 1500 pupils in the case of secondary schools, and exceed 2000 pupils for primary schools. The system provides for a general education of ten to eleven years comprising six years of primary education and four to five years of secondary education. On completion of secondary education pupils can proceed to a technical, pre-university or polytechnic education and then to university. The system has a structured framework, within which a variety of options are available to pupils (See Appendix 1: Singapore Education System). Described as 'flexible and ability-driven' the system caters to each pupil's abilities, interests and aptitudes in order to develop human potential to the fullest (Yip, 1997; Ministry of Education, 2003).

1.2.2　Primary Education

The Primary education provides pupils with proficiency in English Language, Mathematics and their Mother Tongue. It is structured in two stages namely a four-year foundation stage, from Primary One to Four, and a two-year orientation stage from

Primary Five to Six. At the foundation stage there is an emphasis on basic literacy and numeracy skills and pupils receive a firm grounding in the core subjects, English Language, the Mother Tongue, Mathematics and Science. At the end of Primary Four, pupils are formally streamed according to their learning ability for the 2-year orientation stage into one of the language streams, namely EM1, EM2 and EM3. At the end of Primary Six, pupils sit for the Primary School Leaving Examination (PSLE) for emplacement in a secondary school course (Yip, 1997; Ministry of Education, 2003).

1.2.3 Secondary Education

At the secondary level four courses of either four or five years designed to match varying learning pace and aptitudes of pupils are available. These courses are the Special, Express, Normal (Academic) and Normal (Technical) courses. The Special course is at the higher end of the secondary education spectrum and caters for the more academically able and linguistically talented pupils while the Normal (Technical) course at the lower end of the spectrum caters for more technically inclined pupils. The majority of pupils are channeled into the four-year Special or Express courses which culminate in the Singapore-Cambridge General Certificate of Education Ordinary (GCE O) Level Examination. The rest join the Normal (Academic) or Normal (Technical) four or five-year courses, which lead to the Singapore-Cambridge General Certificate of Education Normal (GCE N) 'Academic' or 'Technical' Level Examination in the fourth year respectively. Those who meet the criteria go on to take the Singapore-Cambridge General Certificate of Education Ordinary (GCE O) Level Examination at the end of the fifth year (Yip, 1997; Ministry of Education, 2003).

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1.2.4 The Development of Secondary Schools

As can be seen from the terminal examinations at the end of the secondary school course mentioned in the preceding paragraph, the Singapore examination system is linked to the British examination system. This similarity in the examination systems and hence also the curriculum and syllabuses in both Singapore and UK schools, is linked to Singapore's colonial past, although Singapore's education system, as traced through the development of secondary schools, has evolved from its colonial characteristics in the nineteenth century to the present, where government schools, government-aided schools, autonomous schools and independent schools co-exist. The legacy from the British was a segmented school system with four media of instruction (English, Chinese, Malay and Tamil) and a wide-ranging curriculum (Gopinathan, 2001). There was little government control and the schools' primary aim was to provide a literacy education. Government interest in education was only evident towards the end of the nineteenth century, apparently to raise the low standard of education and to exert more control over government-aided and private schools particularly, private Chinese ones with strong Chinese influence from China (Doraisamy, 1969).

The first milestone development in Singapore's education system was between 1957-1967 during which, an increase in English medium schools led to the demise of Malay, Tamil and Chinese schools. The objective was to provide mass education in order to equip the young with employable skills for the industrialization needs of the economy. The mission schools and the private schools were brought under government control thus facilitating 'supervision and control of staff, curriculum, contact and management'

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(Wong, 1974, p.5). A common education system was set up, with six years of primary education, four years of secondary education, and two years of pre-university education; and emphasis on a policy of bilingualism with English as the common link language and ethnic languages - Malay, Chinese and Tamil - as second Languages. Second Language instruction was made compulsory at both primary and secondary levels and closely tied to the assessment system. Common syllabuses in English, Chinese, Malay and Tamil, common examinations such as the Primary School Leaving Examination, the School Certificate Examination and the Higher School Certificate Examination were introduced (Wong, 1974). 1959-1978 was the Survival-Driven phase of Singapore education.

The next stage of educational development in Singapore was between 1979-1991 marking the Efficiency-Driven phase in Singapore's education system. Major policy initiatives such as ability-based streaming, the establishment of independent schools, and the provision of ten years of general education were introduced. Ability-based streaming was introduced at the end of Primary 3, with an ability-differentiated curriculum and extensions to length of schooling for the weaker pupils. This, together with the provision of 10 years of education, was to reduce the educational wastage resulting from the bilingualism requirement of the 1970s which resulted in about 20 to 30 percent of pupils dropping out of the system at the end of Primary 6 because of their inability to meet the bilingualism requirement (Ministry of Education, 1979; Gopinathan, 2001). The longer period of education was intended to stem the continuing trend of ill-prepared and poorly motivated dropouts into early vocational training. This new initiative entailed postponing streaming by one year, that is, to Primary 4, to alter the Primary School Leaving Examination from a pass-fail to a placement examination, and to allow almost

all students to go on to secondary schools to complete an additional four to five years of secondary education. Recognizing the notion of ability differences, a new Normal Technical track was introduced and technical institutes established to cater to post-secondary school leavers (Ministry of Education, 1991; Gopinathan, 2001).

The establishment of independent schools was aimed at providing Singapore's top pupils with an education that would enable them to provide the leadership to meet the challenges of an emerging service and knowledge-based economy. These independent schools were managed by Boards of Governors with the power to appoint the principal, hire and fire teachers, set fees, decide on admission policies, approve major financial projects, and provide a challenging and enriched curriculum that would spark creativity and innovation (Ministry of Education, 1987; Tan, 1997). In 1988, three government-aided schools went independent; today there are eight independent schools. This was followed in 1994 by the setting up of autonomous schools with the purpose of providing high quality education within the framework of non-independent status and devolvement of greater autonomy to these schools. In 2003 there were 23 autonomous secondary schools (Ministry of Education, 2003; Gopinathan, 2001).

The next major change in secondary education in Singapore occurred in the 1990s with a sweeping review of the entire education system, under the *Thinking Schools, Learning Nation* (TSLN) framework. This period was the Ability-Driven phase of development in Singapore education. The changes were prompted by the acceleration of globalization processes fuelled by the Internet wave and the sharp recession in East Asian economies in 1997. It was recognized that the new economy would place 'a high premium on

innovation, flexibility, entrepreneurship, creativity and a commitment to lifelong

learning' (Gopinathan, 2001, p.11) and hence school leavers would need to have a new

set of skills. As the Prime Minister, Goh Chok Tong said in 1997,

'TSLN is not a slogan for the Ministry of Education. It is a formula to

enable Singapore to compete and stay ahead'.

(Gopinathan, 2001, p. 11)

The Ministry of Education defined its mission as *Moulding the Future of the Nation*, its

vision as *Thinking Schools, Learning Nation* and its goal the *Desired Outcomes of

Education*. The set of goals was an attempt to define the aims of holistic education and

to categorize the values, skills and attitudes that Singaporean students should attain at

different stages of the education cycle. It was a strong re-statement of the need to

develop the whole child, and an explicit recognition of the vast range of talents, abilities,

aptitudes and skills that students possessed. The *Thinking Schools* intent was to ensure

that schools met future challenges while *Learning Nation* was aimed at promoting a

culture of continual learning beyond the school environment. The demands on Singapore

schools were a much higher threshold for experimentation, innovation and uncertainty

where output was not always guaranteed or even expected. The ideal student would be

literate, numerate, IT-enabled, able to collate, synthesize, analyze and apply knowledge

to solve problems, capable of being creative and innovative, not risk-averse, be able to

work both independently and in groups, and be a lifelong learner (Gopinathan, 2001).

These educational outcomes stem from TSLN's four major thrusts: emphasis on critical and creative thinking, the use of Information Technology in education, National Education (Citizenship Education) and Administrative Excellence. TSLN has led to major changes in secondary schools as well as primary schools such as the teaching of thinking skills through infusion and direct teaching, the introduction of interdisciplinary project work, the introduction of a *School Cluster* system, an emphasis on schools as learning organisations, changes to teacher education, leadership training to emphasize commitment and values, and the provision of an entitlement of 100 hours a year in-service training to keep teachers up to date and skilled. As a result of TSLN initiatives, project work is to be included in university admission criteria from 2004 onwards, and university curricula have been changed to make undergraduate education broader. Other more recent initiatives included the *School Excellence Model* (SEM) for appraisal of schools in 2000, and the *Enhanced Performance Management System* (EPMS) for appraisal of staff announced in 2001 (Gopinathan, 2001; Ministry of Education, 2000, 2002).

This section on the development of secondary schools serves two useful purposes for the study. Firstly, it has shown that Singapore's education system is to some extent similar to that of UK owing to its colonial past under the British and in view of this, the study on the role of heads of department will rely to a great extent on the research literature on UK schools in arriving at its research focus. Secondly, by describing changes at each milestone developmental stage of secondary schools vis-a-vis the evolving education system in Singapore, it has provided the backdrop of policy changes against which the study will be conducted.

1.2.5 The Development of the Heads of Department System

Before the inception of the post of 'head of department' in 1985 and the heads of department scheme became a feature of secondary schools in Singapore, schools adopted the 'senior assistants' system. In this system senior assistants appointed by their principals from among the more experienced and or more qualified teachers made up the middle management level in schools while the instructional programme was under the charge of senior subject teachers (SSTs). Senior assistants performed a largely administrative role and their job description included administering internal and external examinations, pupil counseling, recommending textbooks, class arrangements, maintaining discipline, assessing learning and teaching programmes and administrative duties (Ministry of Education, 1985). Implementing and monitoring of the various instructional programmes on the other hand were handled by senior subject teachers (SSTs) who were appointed by their principals from among the more experienced and more qualified teachers in their respective subject areas. The selection criteria for senior subject teachers (SST) varied widely among principals. The posts of senior assistants and senior subject teachers were 'internal appointments'. The fact that the posts were not formal appointments by the Ministry of Education meant that the SSTs lacked status and recognition and also motivation to develop school programmes. There was also no formalised training for them (Ministry of Education, 1989).

The heads of department system, which is meant to overcome some of the shortcomings of the 'senior assistants' system, is a result of the Ministry of Education's aim of 'decentralisation of school management' (Wee and Chong, 1990, p. 47) to bring about an

improvement in the quality of education. It was first piloted in selected secondary schools in 1983 and then implemented in 1984 in secondary schools in stages. By 1989, 58 out of a total of 140 secondary schools had adopted the heads of department scheme (Schools' Council, 1987). As a result of the favourable feedback from schools that there was more effective school management with the heads of department scheme, and instructional support and professionalism of staff had improved, the Ministry of Education instructed that all schools implement the heads of department system by 1994 (Schools' Council, 1987).

On appointment to the post a head of department is expected to function according to a job description which spells out the duties and responsibilities. The original job description for the heads of department is contained in the Principals' Handbook (Ministry of Education, 1985). Several other handbooks for example, 'Head of Humanities Department Handbook' (Ministry of Education, 1988), 'The English Department Handbook' (for Secondary Schools) (Ministry of Education, 1988) and the 'Managing a Secondary School's Mathematics Programme' (Ministry of Education, 1994), have also been published. In the job description (Ministry of Education, 1985) the head of department is required:

- To establish an overview of the subjects under his charge.

- To plan and implement a comprehensive programme of instruction in the subjects including remedial and enrichment programmes.

- To develop teaching strategies for the main programme so as to increase learning effectiveness in the subjects.

- To teach the subject for a reasonable number of hours so that he is in the position to coordinate, advise and give practical assistance on it.

- To assist and monitor teachers assigned the subject areas.

- To select, prepare and organize teaching-learning materials, and to encourage their effective use in the classroom; to develop evaluation strategies and instruments to assess learning effectiveness.

- To cultivate a spirit of professionalism and scholarship in the subjects, and keep up with current trends and developments in the subject area(s) concerned.

- To plan and organize school based workshops or short courses on specific teaching points.

- To serve as advisor to the principal/vice principal on the subjects.

(Ministry of Education, 1985, Annex B1)

The heads of department scheme started with eight heads of department in a typical secondary school in charge of the following departments respectively: English Language and Literature, Second Language, Science, Humanities, ECA and Aesthetics, Craft and Technology, Media Resources, and Mathematics. Heads of department with more than one subject area in their departments are assisted by subject coordinators. For example, the Science heads of department are allowed subject coordinators in Chemistry, Physics or Biology depending on the department's need. (Ministry of Education, 1985). The quota of heads of department for a secondary school has been revised over the years and the maximum number of heads of department a secondary school can appoint increased to 10 with the individual school's actual number depending on the size of its teaching

staff or permitted teacher complement (PTC) and the availability of suitably qualified staff for appointment. For a department to be formed it is mandatory that the head of department has a minimum span of control of 6 teachers as direct supervisees. A head of department who has more than one subject to oversee can be assisted by a subject head or if there are many levels of pupils to cater for, a level head. The span of control is waived for departments such as Discipline, Pupil Welfare and Information Technology (Ministry of Education, 2000). A typical organisational chart consists of heads of department (HOD) posts as well as subject heads (SH) and level heads (LH) posts (See Appendix 2: School Organisational Structure - Secondary Schools).

The heads of department scheme has an advantage over the senior assistant and senior subject teacher scheme in that the heads of department position is directly related to the delivery system of the school curriculum or instructional programme. The heads of department scheme also establishes a career path for teachers. It institutionalizes the middle management position as a promotional post to be recognised service-wide. As the Deputy Director (Secondary Schools) Mok Choon Hoe in 1989 explains,

'The HOD position marks the first rung in the career path of a teacher. It is a middle management position and provides motivation and incentive to teachers who aspire to hold positions of responsibility'.

(Singapore Educator, 1989, p. 12)

Middle managers such as heads of department are now given the formal recognition, necessary status and authority to perform their duties effectively. Heads of department can be selected from the whole service rather than from individual schools as was the case of senior subject teachers (Ministry of Education, 1989). Initially, heads of department were provided training in the form of a part-time course. This was replaced later by a one-year full-time training programme: the Further Professional Diploma in Education (FPDE) course at the Institute of Education designed to equip trainees with the management, technical and human relations skills necessary for leadership and department management (Schools Council, 1987; Chong and Low, 1989). Today, the National Institute of Education (former Institute of Education) still provides the formal training for incumbent heads of department in the form of the four-month Diploma of Departmental Management (DDM) course. Currently the duties and responsibilities of the heads of department are listed in the job description in the Principals' Handbook as:

1. To set the directions for the subject(s) under his charge as chairman of the subject/ECA/media committee comprising relevant teachers.

2. To plan, implement and evaluate a comprehensive programme of instruction in the subject(s) including remedial and enrichment programmes.

3. To develop and adapt effective teaching strategies for the subjects under his charge so as to increase learning effectiveness.

4. To teach the subject(s) for a reasonable number of hours so that he is in the position to coordinate, advise and give practical assistance on them.

5. To develop teachers in his subject areas through classroom observations, induction of new/relief teachers, conferencing and workshops.

6. To select, prepare and organize teaching-learning resources, e.g. textbooks, supplementary and media materials and to encourage their effective use in the classroom.

7. To develop evaluation strategies and instruments to assess learning effectiveness. This entails the moderation of examination papers set and vetted by the teachers as well as the analysis of results.

8. To cultivate a spirit of professionalism and scholarship in the subject (s) and keep up with current trends and developments in the subject area (s) concerned.

9. To plan and organize school-based workshops or short courses on specific teaching points in consultation with the Principal/Vice-Principal and the respective Cluster Superintendent/School Inspector.

10. To serve as advisor to the Principal/Vice- Principal on the department.

11. To do administrative work assigned by the Principal/Vice- Principal.

12. To co-ordinate the work of the Subject and Level Heads and set directions for the subjects under his department.

13. To give the Principal, professional advice on the professional matters concerning his/her Dept.

14. To function as part of the school's management team in respect of decisions relating to School's programmes and allocation of resources.

15. To assist the Principal and Vice-Principal on administrative matters as required including covering their duties whenever necessary.

(Ministry of Education, 2000, Annex H)

As the job description shows, heads of department are expected to cover Principal/Vice-Principal's duties. This is particularly necessary during the June/December school holidays and other exigencies, and rostering of heads of department for such duties is at the discretion of the Principal. The head of department's job description in Singapore is not dissimilar from that of many other models of the subject leaders' role which focus on the structural aspects of the role such as a professional role as classroom teacher; an organisational role in management of the department and a corporate role as a middle manager in the administrative structure of the school (Morris and Dennison, 1982); and providing 'strategic direction and development of the subject; leading and managing staff; and efficient and effective deployment of staff and resources' (Teacher Training Agency, 1998, p.6).

Although the job description of the heads of department in Singapore schools consists of no less than 15 items, these items essentially can be collapsed into 4 broad categories of tasks and responsibilities as follows:

- departmental management (items 1, 2, 3 5, 6,7, 8, 9, 10, 12, 13),

- administration (items 11, 15),

- classroom teaching (item 4),

- whole-school role (item 14).

In practice, heads of department could be covering a wider spectrum of duties than what is spelt out in their job description. For example, it has been observed that heads of department in cluster schools are also involved in activities organised for key personnel

(i.e. school leaders and heads of department) at cluster level (see p. 28). In a typical school organisational structure (see Appendix 2: School Organisational Structure - Secondary Schools) the heads of department as middle managers occupy the third level of the hierarchical structure below the Principal and the Vice-Principal (Ministry of Education, 1999). Based on the organisational structure, the heads of department's direct supervisor is the Vice-Principal and if the hierarchy is strictly adhered to, heads of department would normally take instructions from the Vice-Principal. In practice this is not the case. Heads of department also take instructions from the Principal as well as the cluster Superintendent in the context of cluster schools.

This section has explained the rationale behind the heads of departments scheme which is seen as an improvement over the previous 'senior assistants' system in Singapore schools. In tracing the development the heads of department's scheme, this section has also touched on the Ministry of Education's expectations of heads of department as defined by their job description. This background information is relevant for the study as one aspect of the role of heads of department that would be central to the study, would be what the role is all about.

1.2.6 *School Cluster* System

Architecturally and organisationally, the structure of the typical Singapore school is conventional, in the sense that it is essentially a cluster of discrete classrooms supported by an administrative structure. Teachers and pupils are distributed in these classrooms.

The authority structure of a Singapore school centres on the role of the principal. There is an administrative hierarchy. In a relatively large school of about 1000 or more pupils, for instance, the principal is assisted by a vice- principal and heads of departments. Schools, both primary and secondary functioned as individual entities until 1996. However the management of schools underwent a transformation when the *School Cluster* concept was introduced to Singapore schools in January 1997. The *School Cluster* system was implemented following the establishment of independent and autonomous schools and was among a number of initiatives under the *Thinking Schools Learning Nation* (TSLN) umbrella, which 'characterize the effort to make the education system more responsive' and 'provide school leaders with greater autonomy and flexibility' (Gopinathan, 2001, p.12).

Piloted in 1997 the *School Cluster* system started with four clusters in two zones. These zones refer to geographical zones in Singapore namely, north, east, south, and west zones to which schools belong, depending on where they are situated on the island state. Each cluster was led by a Group Senior Principal whose designation was subsequently changed to 'Superintendent'. As announced by then Minister for Education, Teo Chee Hean:

> 'The Ministry of Education started the "School Cluster" project in twenty four schools to test the desirability and viability of devolving greater autonomy to more schools. The schools are grouped into four clusters with two clusters of five and seven schools each at Primary

and Secondary levels. Each cluster is headed by a Group Senior

Principal who is experienced in school management'.

(Teo, 1997)

The main features of the school clusters are autonomy and flexibility as the Minister for

Education Teo Chee Hean explains:

'The school clusters operate like autonomous entities. They have the

flexibility to make certain financial decisions without having to refer

to the Ministry of Education. They also have a greater say in the

deployment of teachers within each cluster'.

(Teo, 1997)

The aim of school clusters and devolution is, according to the Minister:

'not just to achieve administrative excellence. More importantly, it is

a way to provide schools with the ability to be more innovative and

creative in providing education to their students'.

(Teo, 1997)

For this to be happen, the Minister continues:

'Schools can no longer be managed by a centralized top-down approach in problem solving and in implementing change. An approach that depends much more on local initiative with collaborative local decision-making is needed to spawn new ideas and initiatives in schools. With greater decentralization of authority and accountability, and a culture of collaboration, the management of schools in clusters opens up new possibilities for principals and teachers to look for creative ways of delivering education to pupils'.

(Teo, 1997)

The expected benefits of the school clusters can be summed up as: firstly, faster response to the needs of the individual schools where the schools need only to communicate with their respective Group Senior Principal/Superintendent instead of the Ministry of Education; secondly, economies of scale and a greater pool of resources and expertise leading to greater effectiveness and efficiency; and thirdly, professional development through mutual support, consultation and sharing of ideas. As the Minister for Education Teo Chee Hean points out:

'The devolution of decision-making to the cluster level has allowed resources and expertise to be used according to the needs of schools...and there is greater responsiveness to the needs of individual schools. Principals and teachers in the clusters...have been enriched by the high level of collaboration among schools and benefited from

shared experiences. This has improved the ability of the schools to

meet the need of their pupils'.

(Teo, 1997)

Following favourable feedback of the pilot project from the pioneer school clusters and

their experiences which indicate that the school cluster structure is a viable way of

managing schools, the *School Cluster* system has been extended to other schools in

stages and to all schools by 2002. The *School Cluster* system is a major organisational

change which has transformed the way schools used to function. Although each school

is still assessed on its own as an entity, the reality for the school and the people in it

especially the school leaders and the heads of department, is that the *School Cluster*

system has created a larger external environment, comprising all the cluster schools and

the superintendent, which the schools will need to acknowledge and operate within. In

aiming for administrative excellence, the *School Cluster* system has essentially created

groups of administrative units managed by cluster superintendents. The decentralisation

of authority and accountability mentioned by the Minister has implications on the

authority structure in the schools; in reality the *School Cluster* system extends the

authority structure beyond the schools to the cluster level giving the cluster

superintendent full authority over all the schools in the cluster. Hence the *School Cluster*

system has imposed a new culture and structure which is expected to impact significantly

the way school leaders and heads of department lead and manage their schools.

1.3 Purpose of Study

This study which is intended to be largely exploratory, examines the role of heads of department in cluster secondary schools in Singapore with regard to the nature of the role, the factors that influence the role and how the role is carried out. The role of the head of department merits attention because it has been argued by many researchers that the department and not the school is the crucial unit of change and the head of department's leadership is the key to the improvement and success of schools (Brown *et al*, 2000; Huberman, 1993). This view follows from research findings in the UK (Harris *et al*, 1995; Harris, 1998; Sammons *et al*, 1997) and inspection reports (OFSTED, 1997) that school improvement is not uniformly distributed across all departments, and that rather there is 'considerable variability within secondary schools regarding the performance of individual departments' (Brown *et al*, 2000, p.238). Heads of department have the responsibility for school management, i.e. for achieving their schools' goals by working through and with other professional teachers, which is separate and different from their classroom management roles. They play a crucial role in ensuring the effective operation of school departments, which requires not only subject knowledge and teaching expertise but also the ability to manage and lead a team. The study will explore how the heads of department in the cluster schools view and interpret their role. Of particular interest to the study will be how the role of the head of department is impacted by a major organisational change in Singapore's education system namely, the introduction of the *School Cluster* system.

1.4 Rationale for the Study

Today educational institutions worldwide face rising expectations from their stakeholders - parents, community, board of governors and significant others. The increased emphasis on accountability to its clients has put added pressure on school management to effectively manage their organisations. This has seen increasing importance being placed on the leadership qualities and management skills of school leaders. In the past, documents on education always held the Principal up as the key figure in the management of the school. For example, in 1975, a study in Britain of ten good schools carried out to find out their success factors concluded that '...without exception, the most important single factor in the success of these schools is the quality of leadership of the head...' (Department of Education and Science (DES), 1977, p. 8). The Director of Education in Singapore, John Yip, pointed out similarly that 'the single most important factor that contributes to the success of any school is the principal's leadership' (Goh, 1988, p.20). This view was supported by the Director of Schools Singapore, Wee Heng Tin, who described the principal as '...the most tangible and indispensable characteristic of effective schools' (Goh, 1988, p.20).

However, today school leaders include not only those at senior management levels such as the head of school and the deputy head, but also the middle managers - heads of department and faculty heads - who play a key role in the success of their organisations. Recent thinking in the UK on developing successful schools has shifted focus from the school as the 'unit of change' to the department as the most important 'unit of change' with school improvement centred on the teaching and learning of the subject (Huberman,

1993; Busher & Harris, 1999; Brown *et al*, 2000). In the UK, the need to develop middle managers is recognized in the wake of a slew of authority-enforced policies and cultural and societal changes over the past decade or so. Various central government-imposed educational policies and changes have been found to impact on teachers, support staff, and even students. Some examples are, the introduction of comprehensive schools in the 1980s; decentralisation in management; changes in the inspection and training systems; the introduction of a national curriculum in England and Wales after the late 1980s and central control and accountability for the instructional programme; and league tables based on examination results, all of which have changed the contexts in which schools used to function and altered the way leaders and middle managers used to act (Earley, 1998; Chitty, 1993; Simkins *et al*, 1992; Brown *et al*, 2000; Busher *et al*, 2000).

Busher (2001) points out that 'the imposition of change particularly through authority-enforced policies can be powerful and alienating' (p.1) for people in schools as they have 'to alter the ways in which they have become used to working to meet them' (p. 1). In the context of learning organisations, staff and heads of department have to learn new things as the organisation changes and evolves. It requires that leaders, including heads of department, understand the context or contexts in which organisational change takes place, 'locating understandings of educational leadership in their policy contexts, since policy contexts and school practices interpenetrate and interact with each other' (Busher, 2001, p.2). Because of the new demands made on heads of department it has been deemed insufficient for heads of department to only be experts or specialists in their subject areas as in the 1970s. They now have to play a central role in facilitating and managing change in education, for which managerial skills rather than organisational or

administrative skills are required. As Bell (2003) argues,

'Headteachers cannot manage schools alone, nor can they carry the burden of motivating others to achieve objectives and complete tasks without significant support from colleagues' (p. 95).

Bell identifies three levels of leadership and management in schools: strategic, organisational and operational. In strategic planning, at the strategic level, the headteacher or the principal translates vision into broad aims and long term plans; at the organisational level, the head of department 'converts' them into medium-term objectives; and at the operational level, the teachers in the classroom carry out the tasks and activities to achieve the desired pupil outcomes and improvements. Bell maintains that leadership and management 'are inextricably linked' (p. 95) and the three levels of management 'must work in harmony' (p. 95) as they are mutually interdependent. Implied in Bell's argument is the important role expected of middle managers in schools, such as heads of department, in translating their school's strategic goals to departmental teachers so as to ensure that they understand the school vision and work towards school goals.

This need for all levels in the school to work in tandem in order to achieve desired school improvement is also emphasised by Crowther *et al*, (2002) in their educational concept of parallel leadership which as they define it,

'encourages a relatedness between teacher leaders and administrator

leaders...Parallel leadership is a process whereby teacher leaders and their principals engage in collective action to build school capacity' (p. 38).

As such, parallel leadership views the leadership of principals and teachers in school improvement as 'similar in significance' (p. 38). Crowther *et al*, argue that:

'Parallel leadership is necessary if school vision and classroom practices are to be aligned and if school revitalization is to be sustained over time' (p. xxi).

Similarly, in emphasising the important role heads of department play as a part of the school leadership team in their schools' quest for excellence, Ng (2003) argues that 'all parts of the school must be aligned with the effort for school excellence' (p. 33) and,

'the Principal, Vice-principal and Heads of Department (HODs) should work together as a team with a common purpose...to make things happen' (p. 35).

The importance of the heads of department's role is also implied in a number of researches which investigate the performance of the department towards school effectiveness (e.g. Earley and Fletcher-Campbell, 1989; Harris *et al*, 1995; Harris, 1998; Sammons *et al*, 1997; Brown *et al*, 2000). The NFER study on effective heads of departments is one of the few research projects prior to 1990 which focused on the

management of effective departments (Earley and Fletcher-Campbell, 1989). In their researches, Harris *et al* (1995), Harris (1998), and Sammons *et al* (1996, 1997) identify the characteristics of effective and ineffective departments in secondary schools by looking at major success factors attributable to the heads of department and their findings seem 'to confirm that the department is the crucial "working unit" ' (Brown *et al*, 2000, p. 241). Harris *et al* (1995) identify a collegiate management style and a strong vision of the subject as among the success factors. They conclude that although the schools in which heads of department work are broadly supportive, this is not a major factor in their success, rather the heads of department 'were largely successful because of their own efforts' (p. 297); they sum up effective departments as being 'good at either working with or neutralising external influences' (p. 297). On the other hand, Sammons *et al* (1996, 1997) find that supportive whole-school effort is instrumental in departmental effectiveness and conclude that 'in some schools it was apparently "easier" for all departments to function effectively...in other schools it was "harder" to be effective due to a lack of overall leadership, conflict in the SMT, a climate of low expectations, and inconsistent approaches' (Sammons *et al*, 1996, p. 24). Emphasising the crucial role played by the head of department, Brown *et al* (2000) argue that 'the leadership of the head of department is the key to developing successful schools' (p. 239). However their study which examines the role of the head of department in UK secondary schools in terms of its potential for school improvement supports 'the prediction that distributed leadership (or shared power) among senior and middle managers in UK schools still remains rhetoric rather than practice' (p. 237) and highlights a growing need for a radical change in the current middle management development and training provisions in order to support middle managers as curriculum leaders and managers.

However, despite these and other studies on varying aspects of the topic there is still insufficient research on the management of departments and the role of heads of department. Furthermore, it has been found that the importance and influence of the external environment on internal school processes tend to be overlooked in much of the research into the management of schools (Glatter, 1997; Busher, 2001) although changes in the socio-political contexts of education as seen, for example, in England and Wales, are impacting the roles of teachers as a consequence (Hargreaves, 1994).

Similarly in Singapore, few studies on heads of department in schools have been carried out since the introduction of the post of head of department in 1985 in secondary schools. The meagre research carried out on the role of heads of department in Singapore schools include Chan's (1990) study on participation of middle managers in the management of Singapore secondary schools and Seah-Tay's (1996) study on role conflict among heads of department in Singapore secondary schools. Much of the research was done before 1997 that is, before some of the major reforms in school management were implemented. In Singapore in the last five to ten years, schools have also seen several reforms in the education system, such as the *School Cluster* system which re-organised schools into clusters, the *School Excellence Model* (SEM) which replaced the old school appraisal system, and the *Enhanced Performance Management System* (EPMS) an enhanced system for appraisal of staff, all of which have necessitated major changes in school practice. For example, the *School Cluster* system of grouping schools into clusters of five to as many as eighteen schools under the leadership of a superintendent each, represents a significant departure from the conventional practice of each school functioning on its own. It has created a whole new work culture for managing schools

and impacted significantly the way schools operate and their relationship with each other. All these changes imply that heads of department have now to work in a re-structured environment, and to adjust their role as heads of department in the new context.

However, there has been little research on the management of schools in Singapore and, in particular, a dearth of empirical knowledge of the influence of the external environment on practices in the schools. Furthermore, since the introduction of the *School Cluster* system in 1997 there has yet to be any research on how the *School Cluster* system as a major educational reform is impacting schools' internal processes and the roles of school leaders and middle managers. The lack of research notwithstanding, it is apparent through observation of the daily activities in the cluster schools and from informal feedback from the people in the schools, that the *School Cluster* system has affected the way heads of department used to work. It is not uncommon to hear heads of department refer jokingly to themselves as 'cluster heads of department' and to see them running off to attend cluster-based activities in the afternoons. The casual observations of Singapore schools cited above do seem to suggest that the role of heads of department in cluster schools have undergone transformation somewhat since the *School Cluster* system came about. However, to confirm whether this is really so, an empirical study on the role of heads of department in school clusters seems urgent and justifiable as it will throw light on the important work that heads of department do as middle managers in this new environment. As argued by Huberman (1993), Busher & Harris (1999) and Brown *et al*, (2000), the head of department is the crucial factor in effective teaching and learning and 'the leadership of the head of department is the key to developing successful schools' (Brown *et al*, 2000, p. 239).

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1.5 Significance of the Study

This study is important for two reasons:

Firstly, at the research level, the findings will add to the very limited empirical knowledge that we currently have on the role of heads of department in secondary schools in Singapore. As mentioned in the rationale section, the knowledge available at present can only be described as sketchy and so far only two empirical studies related to the role of heads of department in secondary schools in Singapore can be found and both are postgraduate master thesis. Heads of department perform an important middle manager's role in schools in Singapore and more needs to be known about what they do in their role and what factors impact their role against the background of continuing changes in the educational system. In the absence of local empirical evidence much of what is available about the role of the heads of department in schools is based on empirical findings in other countries such as UK and whether they are representative of the Singapore context has not been investigated. With the educational scene continually changing, it becomes even more imperative that the knowledge on what is happening in the schools particularly from the impact of policy changes and the responsiveness of the people affected by the changes is kept current. Hence it is high time that a study on the role of heads of department like this one is embarked on.

Secondly, at the administration/organisational level, empirical knowledge of how the secondary school heads of department interpret their role in secondary school clusters will be useful to school leaders, school cluster leaders and also the Ministry of Education to assess the impact of external changes in schools and to identify strengths and areas for

improvement. Although feedback about the *School Cluster* system from the pilot school

clusters is positive as reported in the Education Minister's announcement (see Chapter 1,

pp. 19-20) it still requires systematic investigation to reliably assess the impact of this

major educational reform. As any change, be it externally imposed or an internal

change, invariably requires middle managers' involvement to translate to those that have

to carry out the change, that is the teachers, it becomes all the more crucial to ensure that

the heads of department themselves are able to cope with the changing demands. If at all

the school cluster system is having considerable or very great impact on the role of the

heads of department, it would benefit school management to see how heads of

department can be better equipped to meet the challenges of a changing role. As pointed

out by Busher (2001) it is important for senior management to have a good

understanding of the concerns of middle managers functioning within the larger external

environment to avoid a situation where they become alienated because of authority-

enforced policies or changes which threaten their comfort zones and appear to affect their

management practices negatively. As has been mentioned before, the importance and

influence of external environment on internal school processes need more attention in the

management of school organisations than has been given (Glatter, 1997; Busher, 2001).

Hence the findings of this study hope to surface areas for improvement, with a view to

enhance heads of department's capacity to be more effective middle managers.

1.6 Conceptual Framework

The conceptual framework for this study is eclectic and is built on two dimensions, namely the role of a middle manager in school organisations and his interpretation of the authority that he has in that role. The conventional approach defines authority as the property of office but this property of office is subject to the interpretation of the incumbents and the acceptance of this interpretation by his colleagues. An interpretation involves two processes, the assignment of meaning to events that are transparent to all (that is the easier part) and there are events or communications in school, the meaning of which is not transparent and has to be inferred. If the role of a head of department is not properly defined or documented, much of the authority arising from this role has to be inferred or interpreted. As Busher and Harris (1999) have pointed out 'leadership functions are still not adequately delineated or defined' (p. 306) and 'in view of the overwhelming evidence of the influence of department performance upon school performance such clarity concerning leadership at micro management level would seem imperative' (p. 306). Details of the conceptual framework are presented in Chapter 2, sections 2.8.1 and 2.8.2 (see pp. 137-146).

1.7 Research Problem

The research problem may be presented as a question: Given the fact that there is a restructuring of the school system in Singapore, how do heads of department in secondary schools in the *School Cluster* system interpret their role? In Singapore schools, heads of department are the middle managers in the school hierarchy, a situation

not unlike heads of department who have 'a corporate role within the whole school as a middle manager in the administrative structure of the institution' described by Morris and Dennison (1982, p. 40). The research problem focuses on two aspects of the role of heads of department that could be potential sources of the 'tensions and dilemmas' (Busher & Harris, 1999, p. 305) facing middle managers. The first aspect of the role of heads of department is the multifaceted roles that heads of department play (Wise & Busher, 2001). The second aspect is the important part played by the heads of department in managing change school wide (Busher & Harris, 1999). Wise and Busher (2001) writing about the UK schools, point out that as a consequence of their multifaceted roles, subject leaders (the equivalent of heads of department in Singapore schools) end up playing many parts. Is the situation any different for department heads in Singapore? So a concern of this study on the role of the head of department will be whether the role of the heads of department is clearly defined. For instance, are expectations, parameters and authority of role clearly spelled out (Fielding, 1996)?

The other concern of this study is how heads of department are managing change. Since the head of department's position was institutionalised in 1985 numerous changes have been introduced in the education system. Many recent changes and initiatives fall within the *Thinking Schools Learning Nation* (TSLN) framework (Goh, 1997). Invariably each time a change or initiative is introduced, it appears that people in the schools bear the full brunt of it and school leaders and middle managers are the ones who have a major part to play in managing the cultural change that comes with the new initiative. As mentioned earlier (see p. 30), this study is particularly concerned with the impact of a major organisational change in the Singapore education system introduced in 1997 namely, the

School Cluster system, on the role of heads of department in secondary schools. The *School Cluster* concept changed the whole idea of operating a school when it grouped schools into clusters under the control of a superintendent each. Whereas in the past a school could operate independently of other schools, today collaboration appears to be the norm within the cluster and a school is more likely to identify itself and be identified by the cluster it belongs to, for example, a 'North 1' school means it is a school in Cluster One in the North Zone of Singapore. The study is concerned with how the cluster structure and culture have impacted the role of heads of department. Granted that the importance of the role of the head of department has been acknowledged with regard to managing change (Busher & Harris, 1999; Bennett, 1995; Harris *et al*, 1995; Turner, 1996; Sammons *et al*, 1997; Harris, 1998) there is still inadequate research into the dynamic relationship between culture and school leadership especially that of the head of department. In Singapore, the few studies on heads of department in Singapore schools have been confined to certain aspects of role, such as, role ambiguity and role conflict (see p. 27). Furthermore, as has been mentioned earlier (see p. 28), there has been no study on the role of heads of department in cluster schools since the introduction of the *School Cluster* system in 1997.

1.8 Research Aim

Based on the research problem above, the study intends to investigate how heads of department in secondary schools in a school cluster in Singapore view and interpret their role in the light of recent changes in Singapore's education system in line with the national vision of *Thinking Schools Learning Nation* (TSLN). The study aims to find out

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how the role of heads of department has been impacted as a result of a major organisational reform in the Singapore education system namely, the *School Cluster* system which was introduced in 1997. The study intends to investigate how the role of the heads of department in Singapore has been impacted as a result of the new demands that come with changes in context and work culture in secondary schools. The nature of the heads of department's role and the factors influencing it will be studied with reference to continuing and concrete organisational activities within the wider context of the school cluster framework as well as the school context. Issues such as the work culture in the internal school context and the external cluster context, role tensions, and the heads of department's competence in managing their role, are dimensions that will receive attention in the study. The research questions are spelt out in Chapter 2, section 2.8.3 (see pp. 147-148).

1.9 Conclusion

This chapter has presented the parameters and boundaries for the study. It has presented the argument for the need of an investigation into the role of heads of department in Singapore cluster secondary schools at a time when major educational reforms in the Singapore education scene exert pressure on the capability of middle managers to effect change in new and unfamiliar contexts. This chapter has provided the focus and direction for the review of literature and related research that are pertinent to the study of role of heads of department. The literature review in Chapter 2 will look at the role played by middle managers such as heads of department in schools particularly in UK although examples from the US and other countries will also be used where applicable and for

comparison. The review will cover the impact of contextual changes in the UK education system on the role of the heads of department and also describe the contextual changes in the Singapore education system; it will examine the tensions surrounding the role and role theory for the conceptual underpinnings; and the extent these middle managers are being supported to manage the role in relation to their training and professional development. It will also look at the empirical studies and theoretical models on the role of middle managers in schools as well as the literature on contemporary schools as learning organisations, to discover themes that might be relevant for the study and from which research questions can be evolved. This chapter will also contain the conceptual framework for the study and the variables that will be investigated. Chapter 3 will discuss the methodology to be adopted for the study and the rationale for the choice of the research design; it will detail the processes involved in design and validation of the instruments, the sampling procedures, the pilot study and the main study. Chapter 4 will reveal the findings, describing them in relation to the themes that are used for the conceptual framework. Chapter 5 will analyse and discuss the findings in terms of its implications on the role of heads of department in the Singapore context; it will also draw a comparison between heads of department in Singapore and those in UK. The final chapter will conclude with an evaluation of the study highlighting the study's strengths and limitations; its implications for practice and for further research; and the study's contribution to the body of educational research by way of the development of a model of the role of heads of department in cluster secondary schools in Singapore.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature and related research on the changing and expanding role of the heads of department, their work and the challenges that are pertinent to the study of role of heads of department in developing successful schools mainly in the United Kingdom and Singapore. The focus group is the subject leader (i.e. head of subject department or academic middle manager) in the secondary school. In the literature, the nomenclature seems to vary from system to system but in Singapore, the appropriate term is the head of department so that will be used throughout.

This literature review will seek to gather both conceptual as well as empirical knowledge pertinent to the role of middle managers in schools and will lean on the literature on the management of schools for material relevant to the generic manager role in schools rather than the management of particular school functions. The literature on the following areas identified as relevant to the study will be considered: the theoretical aspects of context and the impact of external policy changes on secondary schools and its implications for the middle manager; school clusters, contemporary schools as learning organisations; training and development needs of heads of department; theoretical models of the role of middle managers and empirical research; the nature of the role of the middle manager with focus on role theory and empirical evidence related to the tensions in the role of the middle manager. The purpose of the review is to understand the secondary education context within which the study takes place; to gain insight into the theoretical concepts which underpin the

investigation for an understanding of the complex factors which impact on the heads of department role; to consider the findings from earlier research which are relevant to the present research; and to consider potential frameworks for analysis.

2.2 Context: Theoretical Perspectives

The importance of locating the understanding of educational leadership within the context of its internal school environment as well as its external environments has been pointed out by a number of writers. For example, locating the understanding of educational leadership in their policy contexts is emphasised by Glatter (1997) and Busher (1998, 2001), as schools are situated in socio-political environments which interpenetrate and interact with the schools' internal processes. Busher *et al* (2000) pointed out that 'powerful external pressures at national and local level can define what actions a school may take internally' (p.12) while at the same time, 'there is also a need to take account of how internal process impact on external socio-political processes' (p.12). School leaders need to recognize this interconnectedness as they have a central part to play in coping with changes in their schools' environments (Grace, 1995; Barber (1998). According to Busher (2001) school leaders have to manage three types of change, the first of which is 'preferred' while the other two are 'imposed'. Preferred change is made by school leaders and staff based on the values and ideologies which they hold concerning the appropriateness of particular educational practices, processes and outcomes. In contrast, 'imposed' change can take two forms. Firstly it can be authority-enforced by central government, local government or the head teacher; secondly it can be 'imposed' by changes in socio-economic environments. These externally imposed changes can be 'powerful and alienating' (Busher, 2001, p.1) as they change the way people in schools work

resulting in 'senses of disempowerment or loss of control' (Busher, 2002, p. 275).

School leaders including middle managers go through 'several interlocking micro-political processes' (Busher *et al* 2000, p. 2) in coping with organisational change, such as 'read and respond' to the pressures in the external environment; mediate and interpret these pressures to their staff; support and help their colleagues to cope with the pressures of change; and present the internal school dynamics to their external communities (Busher *et al*, 2000). How school leaders manage these processes depends on the values and ideologies held (Gewirtz *et al*, 1995) in the various contexts or 'arenas of conflict and collaboration' such as power and authority distribution; cultural-interpersonal; structural-organisation; techno-epistemological; socio-economic; and policy contexts described by Busher (2001, p. 2). This is the inherent and eternal tensions between structure and agency in social organisations such as schools, according to Giddens (1984).

Policy contexts impact what schools do and changing contexts put pressure on middle managers and school leaders to 'develop coherent policies ...to be able to manage successfully how they carry out and change practice...' (Busher, 2001, p. 3). In power and authority contexts or the arenas of culture and politics of leadership, middle managers manage different functions as pointed out by Busher and Harris (1999) such as, awareness of context and creation of professional networks, bridging and brokering between different levels of authority, modeling successful and innovative practice, using power to support particular educational values and ideologies, creating social cohesion, and mentoring staff development. In cultural-interpersonal contexts, they ensure that the departmental cultures developed with their staff are aligned to the organisation's values. In structural-organisation contexts, they focus on building

social cohesion (Hopkins *et al* 1997). In epistemological contexts, middle managers mediate epistemological changes to their staff and help them adapt constantly changing knowledge to existing and preferred educational values and needs of students (Siskin, 1994; Busher, 2001). In socio-economic contexts, they give importance to the communities which schools serve, as well as the students' home and community backgrounds as these impact considerably the way schools operate, their learning and teaching processes and pupil outcomes (Busher, 2001).

2.2.1 Changing Policy Contexts: UK

Changes in policy at macro or central government level have far-reaching consequences on those operating in schools. For example, the impact of curriculum change by central government in England and Wales on teachers after the late 1980s (Chitty, 1993; Simkins *et al*, 1992); and on support staff (Mortimore *et al*, 1994; Busher and Saran, 1995a) after the Education Reform 1988, generated complaints from many support staff about their worsening conditions of service and extra duties. The impact on staff through the inspection processes was reported by Earley (1998) as very stressful and the impact on students was found to be deleterious on their attitudes to learning (Busher *et al*, 2000). Turner (2003) identified two key areas where government-inspired educational policy initiatives impacted the work of subject leaders in the UK. These were firstly, the national standards for subject leaders and secondly, performance management. The national standards for subject leaders published in 1998, spelt out clearly the responsibilities of subject leaders in both primary as well as secondary schools in four key task areas namely, strategic direction and development of the subject; teaching and learning; leading and managing staff; and efficient and effective deployment of staff and resources (TTA, 1998). This

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document 'raised questions about what the people who have responsibility for school subjects are actually supposed to do' (Bennett, 1999, p. 289). For example there was concern about whether subject leaders were supposed to be managers or leaders, how senior managers were using the standards, and whether subject leaders were aware of their contents. As for performance management, it was introduced following a change of government in the UK in 1997, which saw education policy shifting emphasis from competition as a result of market forces to a focus on educational outcomes, and performance management involving three key aspects: performance-related pay (PRP), appraisal and the management of information/data. The changes are contained in the *Building Excellent Schools Together* (BEST) document, *The BEST for Teaching and Learning* (Welsh Office 1999).

The theoretical perspectives on 'contexts' and the impact of educational policy changes in the UK on schools in the country have relevance for the study. As can be seen, the UK central government's imposition of changes in curriculum and inspection procedures, standards for subject leaders and performance management have caused significant upheavals at the school level and increased stress among staff as well pupils. The present study is being conducted in circumstances similar to that in the UK. The Singapore education system is also experiencing major contextual changes in support of the national vision of *Thinking Schools, Learning Nation* (TSLN). Key education policy changes in the Singapore context which have a bearing on the study are: the *School Cluster* system, a new approach of managing schools in administrative clusters; the *School Excellence Model* (SEM) a new internal self-appraisal tool for schools (Ministry of Education, 2000; Gopinathan, 2001); and the *Enhanced Performance Management System* (EPMS) for performance appraisal in the education service (Ministry of Education, 2002). These external policy initiatives

are described in the next section.

2.2.2 Changing Policy Contexts: Singapore

In the Singapore context major changes in secondary education occurred in the 1990s with a sweeping review of the entire education system, under the *Thinking Schools, Learning Nation* (TSLN) framework (see Chapter 1, pp. 6-8). The changes were prompted by the acceleration of globalisation processes fuelled by the Internet wave and the sharp recession in East Asian economies in 1997 (Gopinathan, 2001). Prime Minister, Goh Chok Tong stated that,

'TSLN is not a slogan for the Ministry of Education. It is a formula to enable Singapore to compete and stay ahead'.

(Goh, 1997)

The Ministry of Education defines its mission as *Moulding the Future of the Nation*, its vision as *Thinking Schools, Learning Nation* and its goal as the *Desired Outcomes of Education.* The '*Thinking Schools*' intent is to ensure that schools meet future challenges while *Learning Nation* aims to promote a culture of continual learning extending beyond school. The set of goals defines the aims of holistic education and embraces the values, skills and attitudes that Singaporean students should attain at each stage of their education. Heralding the major changes ahead the Prime Minister said,

'Our Ministry of Education is undertaking a fundamental review of

its curriculum and assessment system to see how we can better

develop the creative thinking skills and learning skills required ...

cut back on the amount of content knowledge...to encourage

teachers and students to spend more time on projects that can help

develop the skills and habits of independent learning'.

(Goh, 1997)

The demands on Singapore schools are 'a much higher threshold for experimentation,

innovation and uncertainty where output was not always guaranteed or even expected.

The ideal student would be literate; numerate; IT-enabled; able to collate, synthesise,

analyse and apply knowledge to solve problems; capable of being creative and

innovative; not risk-averse; be able to work both independently and in groups; and be

a lifelong learner' (Gopinathan, 2001, pp.11-12).

These educational outcomes stem from TSLN's four major thrusts: emphasis on

critical and creative thinking, the use of Information Technology in education,

National Education (Citizenship Education) and Administrative Excellence. TSLN

has 'imposed' major changes in secondary and primary schools such as the teaching

of thinking skills, introduction of interdisciplinary project work, changes to teacher

education, leadership training, and the provision of an entitlement of 100 hours a year

in-service training for teachers to stay relevant. While guided by an ability-driven

curriculum, the emphasis is on schools as learning organisations. Project work would

be counted in university admission criteria from 2004 onwards and university

curricula have been changed to broaden undergraduate education. Major initiatives to

make the education system more responsive include the School Cluster system, the

School Excellence Model (SEM) for internal self-appraisal of schools (Ministry of Education, 2000; Gopinathan, 2001) and more recently, the *Enhanced Performance Management System* (EPMS) for appraisal of staff (Ministry of Education, 2002).

School Cluster System

The *School Cluster* system is aimed at providing school leaders with greater autonomy and flexibility and allowing for greater sharing of resources and good practices (Teo, 1997; Gopinathan, 2001; Chapter 1, pp. 16-20). It can be envisaged that with a number of schools clustered under a superintendent, there will be greater demands on school leaders and middle managers to be involved in collaborative 'projects' at cluster level in response to the idea of sharing of resources and good practices.

School Excellence Model (SEM)

The *School Excellence Model* (SEM) for appraisal of schools (Ministry of Education, 2000) (see Appendix 3), is an adaptation from a number of quality models of business organisations such as the European Foundation of Quality Management (EFQM), the Singapore Quality Award (SQA) model and the American Malcolm Baldrige National Quality Award model (MBNQA) (Ng, 2003). It replaces 'the external-driven school inspection culture with an internal one in which both processes and results are to be considered' (Gopinathan, 2001, p.12) in 2000. The SEM provides schools with 'a more systematic framework and holistic approach to self-assessment' (Teo, 2002). It is built on the concepts of 'Enablers' and 'Results' which are underscored by nine quality criteria, five under the former and four under the latter. The five 'enablers'

are leadership, strategic planning, staff management, resources, and student-focused processes; while the four 'results' are administrative and operational results, staff results, partnership and society results and key performance results (see Table 1).

Table 1: SEM: Quality Criteria

ENABLERS	RESULTS
▪ leadership ▪ strategic planning ▪ staff management ▪ resources ▪ student-focused processes	▪ administrative and operational results ▪ staff results ▪ partnership and society results ▪ key performance results

(Source: Appendix 3: SEM)

The SEM's conceptual framework provides a structured and fact-based approach for schools to assess themselves at the macro and micro levels, measure progress over time, and involve staff in the process of improvement, thereby increasing the shared vision and ownership of school improvement. SEM therefore provides schools with the means to objectively identify and measure their strengths and areas of improvement in their journey towards excellence. As the Minister for Education explains,

'By measuring both outcomes and processes, and requiring schools to examine their practices not independently, but as parts contributing to a whole, SEM is structured to emphasise holistic education. The SEM requires every school to continuously question its current practices and established norms, and think of

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more creative and effective ways of delivering the desired outcomes of education'.

(Teo, 2002)

All schools are now required to carry out a comprehensive, systematic and regular review of processes and outcomes referenced against the SEM in their annual self-appraisal exercise. Based on the SEM, an excellent school is one where 'enablers' are in place, as the leaders lead staff, devise strategies and deploy resources through student-focused processes like target setting and monitoring performance, to produce excellent results (Ng, 2003). Clearly, 'it takes great leadership to chart the direction to achieve school excellence' (Ng, 2003, p. 35), and that means the principal, vice-principal and heads of department working together as a team in the quest for excellence. The SEM calls for a systemic approach to achieve excellence which implies alignment of all parts of the school; the culture, processes and resources need to be integrated seamlessly and coherently to support programmes, and programmes to support the school goals which in turn must be shared by all in the school (Ng, 2003). The concern however is that:

> 'it is almost certainly true that this new appraisal system will add on to the workload of the schools. There will be a lot of work needed in the beginning phase of implementation to lay the platforms for the SEM'.

(Ng, 2003, p. 37)

More specifically, it is envisaged that SEM will add on to the workload of heads of department, who will have to lead their departments in the review and assessment of their departmental programmes, and also carry out the annual self-appraisal exercise with their principals/vice-principals, as members of their school leadership/ management teams. With SEM, external validation becomes an important part of the appraisal process and schools will be externally validated once every five years: 'Schools will apply for the review...The main purpose of the validation is to introduce an external perspective to a school's assessment' (Ministry of Education, 2000, p.7).

Enhanced Performance Management System (EPMS)

The *Enhanced Performance Management System* (EPMS) (Ministry of Education, 2001) was announced by the Ministry of Education in 2001 as a component in the national policy initiative called the *Education Service Professional Development and Career Plan* (Edu-Pac). The Edu-Pac's three main components are as follows:

i)   A new career structure aimed at providing a challenging and enriching career with three career paths or fields of excellence: Teaching Track, Leadership Track, and Senior Specialist Track, to cater to the different talents, abilities and aspirations of education officers. With these three Tracks, the MOE hopes 'to build a top-notch team of good teachers, capable leaders and dedicated specialists' (Teo, 2001, p. 2).

ii)   A new recognition structure which is a total rewards structure that recognises and rewards good performance as well as provides learning and development opportunities. It establishes a strong link between pay and performance.

iii)   Enhancements to the performance management system which is to improve the way education officers are assessed.

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The *Enhanced Performance Management System* (EPMS) is an enhancement of the previous system with its emphasis on management capability, in that it is a competency-based model. It defines the knowledge, skills and traits appropriate for each career track or field of excellence. It is described by the Minister for Education, Teo Chee Hean as:

> 'the glue that binds the other two components of Edu-Pac. It will provide greater clarity in terms of the link between pay and performance as well as career progression along the different career tracks'.
>
> (Teo, 2001, p.7)

The EPMS aligns learning and development opportunities with the recognition and career structures expected for effective performance in each field and offers greater clarity in the competencies and behaviours expected of the different roles. It defines the competencies (i.e. knowledge, skills and traits) essential for success in each track or field of excellence, according to major role functions contained in the Role Profile and Key Result Areas (KRAs) for each level in the teaching service, from teachers to middle managers (e.g. subject heads, heads of department) and school leaders (e.g. vice-principals, principals) (Ministry of Education, 2002). Essentially with EPMS,

> 'our appraisal of officers will be more customised to the role that they play. For school leaders, greater emphasis is given to their ability to provide visionary leadership. For teachers, a more critical competency is their ability to nurture the whole child'.
>
> (Teo, 2002, p.2)

Therefore the EPMS is designed to help officers reflect on their capabilities and chart their own professional development. The Permanent Secretary, Ministry of Education, Chiang Chie Foo, captures the significance of the EPMS for supervisors:

'One of the key elements in the EPMS is the need for regular coaching and feedback. Reporting Officers play an important role in helping their teachers know how they are progressing, and in encouraging them to do better. Personal commitment is a critical aspect in the development of their competencies and teachers should work closely with our supervisors to identify the areas, that we need development and training in'.

(Ministry of Education, 2002, p. 1)

The goal of the Ministry of Education (MOE) is for all schools and officers to look long-term and develop pupils holistically. To this end, the SEM and EPMS are assessment tools designed,

'...to encourage and reinforce behaviours and outcomes that we value. SEM and EPMS are two important instruments for aligning practices and behaviours with our ability-driven paradigm'.

(Teo, 2002, p.2)

The EPMS is similar in some respects to the PRP in the UK described in the preceding section. It links performance to the new recognition structure, and heads of

department will have a more challenging role to play in the appraisal of departmental staff as line managers in the hierarchical organisational structure of their schools. As the Minister for Education has stated, the challenge which school leaders including heads of department face is to operationalise EPMS in a nurturing and supportive environment so that teachers will find satisfaction in their chosen vocation. This is a heavy responsibility which they carry in the Ministry's investment in a high quality education service that will prepare the nation's children for the future (Teo, 2001). The Edu-Pac underscores the important task of heads of department, vice-principals and principals as the senior education officers in the education service to create an environment which is nurturing, supportive and satisfying for all teachers.

The schedule for the implementation of the EPMS is 2003 for appraisal of officers on the Leadership Track, that is school leaders and heads of department, and of teachers in 2005 (Ministry of Education, 2002). In preparation for the implementation of the EPMS in 2003, all school leaders including middle managers are given training on how to use the EPMS and each school provided with the following resources: info-kits containing the various tools and components needed to effectively implement EPMS; Role Profiles which set out the key results areas (KRAs) or accountabilities for the different roles in the EPMS; Excellence and Competency Dictionaries which describe the competencies essential for effective performance; and the Performance Management Guide which provides useful tips on how to prepare for a meaningful appraisal interview (Ministry of Education, 2002).

The review above paints Singapore's educational landscape in the 1990s up to the start of the new millennium, with 1997 being a milestone year when the *Thinking Schools, Learning Nation* (TSLN) vision was announced by then Prime Minister Goh

Chok Tong. More recently, the education system has seen further refinement from a highly structured system based on efficiency to a more diverse system aimed at greater flexibility and innovation and training a wider range of talents. Prime Minister, Lee Hsien Loong, at the 2004 National Day Rally announced:

'Our school system has gone through many improvements...But...I think we cannot just do more of the same because...you are just going to get incremental improvements. You need a qualitative change, a quantum leap to get different sort of education, different sort of results. And that's why we have been moving to a more flexible and more diverse education system...we are offering people more choice and we are better able to groom special talents and spot ability all across the spectrum'.

(Lee, 2004)

Elaborating on the new directions for the education system, Minister for Education, Tharman Shanmugaratnam said:

'The most important changes...for the future are not in new structures and new educational pathways per se. The critical shifts will be in how students learn, how actively they think for themselves, and how they interact with their teachers and peers...That will determine the quality of their learning...'

(Shanmugaratnam, 2004)

The significance of the change is that 'we are shifting focus from quantity to quality, and from efficiency to choice in learning...from an efficiency-driven system to one focused on quality and choice in learning' (Shanmugaratnam, 2005). In this new educational landscape, teachers are expected to teach less so that their students will learn more (Lee, 2004), and 'quality will be driven by teachers and leaders in schools, with ideas bubbling up through the system rather than being pushed down from the top' (Shanmugaratnam, 2005). While schools are now expected to take ownership of the changes that they desire , the Ministry of Education's role will be '...to provide top-down support for bottom-up initiatives' (Shanmugaratnam, 2005).

Aims of Education in Singapore

In Singapore, education has always been regarded as a vital social institution and instrument for economic growth, social cohesion and national identity. The government recognizes the need for human resource development linked to macro-economic planning as a primary reason for investment in education and accomplishes this through a highly centralised system of education. Its concern is not only to raise and maintain standards but also the inculcation of certain values. Given its plural society, school-based socialisation in Singapore is deemed important in creating the 'new Singaporean'. The government views traditional Asian collective values as an essential component of social cohesion and thus strives to maintain its political and cultural autonomy and the belief that a 'neo-Confucian ideology is a sensible alternative' (Gopinathan, 1996, pp. 77) to western political and economic models despite its global position. These factors have helped to create a strong 'learning culture' in the society and particularly, in the schools (Mortimore *et al*, 2000).

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Since self-government in 1959, the government has resisted the 'linguistic nationalism' (Gopinthan, 1996, p. 81) of former colonies and retained English as the public language and as the medium of instruction for social cohesion and to gain a competitive edge in the region for Singapore. The emphasis is on a policy of bilingualism with English as the common link language and the ethnic languages - Malay, Chinese and Tamil - as second Languages to promote equality of opportunity in a pluralist nation (Wong, 1974; Mortimore *et al*, 2000; Chapter 1, p. 5). Significantly, policy shifts in Singapore's education scene since 1959 have occurred in distinct phases linked to changes in its economic landscape. Broadly, these educational phases are: Survival-Driven Education (1959 to 1978); Efficiency-Driven Education (1979 to 1996); Ability-Driven Education (since 1997) and Innovation-Driven Education, evident from 2006. (Ho, 2006; Chapter 1, pp. 4-8).

The Survival-Driven Education phase (1959 to 1978) saw the provision of mass education for national cohesion and economic survival; and a common education system and common curriculum replaced the diverse education system where schools used four different languages: English, Malay Chinese and Tamil, as their medium of instruction and a wide-ranging curriculum - a legacy left by the British in 1959. The aim of education then was to equip the young with employable skills for the industrialisation needs of the economy after Singapore's independence in 1965 (Gopinathan, 2001; Ho, 2006).

The Efficiency-Driven Education phase (1979 to 1996) restructured the school system and reduced educational wastage through the introduction of ability-based streaming, values education to promote social cohesion, and provision of ten years of education

to combat educational attrition at primary level. In the recession from 1986 to 1987, the emphasis was on a broad-based education and the need for continuous training and re-training. Focus on provision of post-secondary vocational and technical training resulted in the establishment of the Institute of Technical Education in 1992 to forge a closer link between education, training and labour market demands (Ministry of Education, 1979, 1991; Gopinathan, 2001; Ho, 2006).

The Ability-Driven Education phase (since 1997) was marked by major educational reforms linked to the *Thinking Schools, Learning Nation* (TSLN) vision which then Prime Minister Goh Chok Tong announced in his landmark speech *Shaping Our Future: Thinking Schools, Learning Nation* (TSLN) at the opening of the 7th International Thinking Conference in June 1997. The Prime Minister rationalized:

> '...We have to prepare ourselves for...a future of intense competition and shifting competitive advantages, a future where technologies and concepts are replaced at an increasing pace, and a future of changing values. Education and training are central to how nations will face in this future. Singapore's vision for meeting this challenge for the future is a vision for a total learning environment, including students, teachers, parents, workers, companies, community, organisations and government'.

> (Goh, 1997)

Explaining further, the Prime Minister said, 'we want to have an environment where workers and students are all the time thinking of how to improve themselves. Such a

national attitude is a must for Singapore to sustain its prosperity' (Goh, 1997). In this new educational landscape, the role of schools is key. The Prime Minister said:

> 'The concept of *THINKING SCHOOLS* is central to this vision. Schools must develop future generations of thinking and committed citizens, capable of making good decisions to keep Singapore vibrant and successful in future'.

(Goh, 1997)

Because of its smallness and lack of natural resources, Singapore places a high value on its human resource as its main economic asset. Its reform agenda focuses on improving education and training, and maximising the skills and the potential of its human resource (Ho, 2006). As stated in the UNESCO World Education Report (1998), Singapore devotes a higher proportion of its public expenditure on education (23.4 per cent) than the UK (11.4 per cent) (Mortimore *et al*, 2000).

The underlying philosophy of education in Singapore has always been to educate a child to bring out his greatest potential in order that he will grow up into a good man and useful citizen, thus formal education in Singapore seeks to equip the young with the skills to earn a living, to have sound moral values and, to grow up into responsible adults and loyal citizens. The government's educational thinking was summed up in 1997 by then Minister for Education Teo Chee Hean:

> 'We must develop our young to think creatively and apply knowledge in innovative ways, while recognising the wide range

of abilities among pupils. We will revise the school curriculum to stretch but not overload our pupils. We will reduce the amount of factual knowledge they must acquire, and do more to build thinking and process skills. We will review the system of assessment of both schools and pupils to meet their objectives while maintaining rigorous standards'.

(Teo, 1997)

This has been achieved through the largely centralised education system which currently oversees about 172 primary schools, 158 secondary schools (including 21 autonomous schools), 3 full schools (with both primary and secondary education) and 7 independent schools; 16 junior colleges; and 1 centralised pre-university institute (Ho, 2006). Given the economic and political roles expected for education, the government has played a dominant role in setting and implementing education policy. Centralisation is reflected in policy making, common curriculum and assessment, budgets, admissions to education institutions, attainment levels and streaming parameters of the primary and secondary schools as well as in other areas such as staff allocation. (Mortimore et al, 2000). Compulsory education has been instituted at the primary level since 2003 beginning at age six. Ten years of education, six years primary and four years secondary, are provided. Post-secondary academic education is offered in the junior colleges and centralised pre-university institute while direct training for the world of work is provided by the institutes of technical education and polytechnics; and tertiary education by four universities. The school system is structured so as to encourage children to complete at least the 10 years of basic education before they enter the world of work (Ho, 2006). According to Minister for

Education, Tharman Shanmugaratnam,

> 'We have a very efficient education system, one that delivers
> consistently high quality education to more than 90% of cohort
> through our schools, and more than 80% of each cohort through
> our post-secondary and tertiary institutions. The education we
> provide is rigorous and not shallow. Achievement levels are high
> and improving, and have been validated in international
> comparisons'.

(Shanmugaratnam, 2004)

However, moves towards decentralization have been evident starting from the mid-1980s with the establishment of independent schools in 1988, autonomous schools in 1994 (see Chapter 1, p. 6) and introduction of the *School Cluster* system in 1997 (see Chapter 1, pp. 16-20). The *School Cluster* system's objective of devolving greater autonomy to schools marked a significant step forward in the Ministry of Education's attempt to move away from a highly centralised and structured education system focusing on efficiency and a culture of non-flexibility, to 'a more diverse system aimed at promoting flexibility and innovation...' (Ho, 2006, p. 42). The *School Cluster* system which began with 24 pioneer schools to assess the viability of devolving greater autonomy to schools was extended to all schools by 2002. Today there are 28 clusters in four zones with each zone having seven clusters (Ho, 2006).

The *School Cluster* system is aimed at achieving greater administrative flexibility; allowing school clusters to make certain financial decisions and deployment of staff

within each cluster and to enable schools to be more innovative and creative in the provision of education (see Chapter 1, pp. 17-20). Administration-wise, autonomy is devolved to cluster superintendents who are expected to develop, guide, and supervise leadership teams in the schools to ensure that the schools are effectively run. They facilitate collaboration, networking and sharing among their cluster schools so as to raise the capacity of the leadership teams and the performance of their schools. Cluster superintendents also play a key role in personnel and financial management. They develop personnel in their clusters and identify those with potential for career development. They ensure the effective and optimal use of cluster funds such as financing worthwhile school projects and activities which enable schools to achieve the Desired Outcomes of Education (Ministry of Education, 2004).

The education system in Singapore recognises the importance of strong educational leadership, setting high standards and rewarding motivation and effort. While government schools have school advisory committees, and aided schools, boards of management, in general principals are expected to exercise initiative, add to resources, build links with community, compete for students and develop a distinctive image of their own schools. A measure of their success can be related to the school's performance in the annual ranking exercise (for secondary schools as well as junior colleges) which is defended on the grounds that it promotes competition and provides information for parents in their choice of schools for their children. Since 1992 results have been published in a national school performance ranklist of 'raw' results and value-added tables. Schools which have added value to their students' performance receive financial rewards from the MOE (Mortimore *et al*, 2000).

The strong belief in Singapore in the value of effective school leadership as well as of teachers is reflected in the professional training provided. Both heads of departments and principals are trained in full-time programmes sponsored by the MOE. Through these programmes, (currently the Diploma in Departmental Management [DDM] for heads of departments and Leaders in Education Programme [LEP] for principals) participants are exposed to a wide range of literature on school effectiveness and educational administration. As for teacher training there are centralised curricula for initial teacher education provided by the National Institute of Education which is also responsible for in-service and postgraduate training (Mortimore *et al*, 2000).

Singapore also has a well-developed, high-profile system of school evaluation. Prior to 2000, schools were appraised every four to five years by teams of school inspectors and specialists from the MOE. However since 2000, appraisal of schools is done internally by the schools annually and the appraisal is validated by appraisal teams from the MOE every five years. Due to a well managed system of school inspection, regular sharing sessions for senior school staff and professional training such as the DDM and the LEP, school leaders are well supported to exercise their initiative and develop their own distinctive strategies (Mortimore *et al*, 2000).

Changes in Perspective

Over the last 40 years or so all the changes to the education system in Singapore have been underpinned by several central tenets of Singapore education. The first tenet is 'the belief in an overriding relationship between education and the economy' (Ho, 2006, p. 44), hence the importance of Singapore's education system remaining

relevant to the type of economy in which Singaporeans will have to find employment when they complete schooling.

The second tenet is 'the belief in providing equality of educational opportunity based on merit, ability and effort' (Ho, 2006, p. 44), hence the policy of identifying students with exceptional ability to form a talent pool for middle-level and top-level leadership. This tenet has recently been modified to developing every talent. Prime Minister, Lee Hsien Loong, speaking on the re-making of Singapore said: 'We want to develop every talent, not just those who are academically inclined...' (Lee, 2005).

The third tenet is provision of character development to ensure that students have a moral understanding of right and wrong and of their place in society. This is done through the various mother tongues curriculum, as the mother tongues serve as a means of strengthening cultural resources and ethnic identity as well as a vehicle for moral instruction (Ho, 2006).

The fourth tenet is that schools take ownership of changes they initiate as the education system moves from efficiency, to choice and diversity, in line with the 'top-down support for bottom-up initiatives' policy introduced by the Ministry of Education from 2005 onwards (Ho, 2006, p. 45).

The changing educational landscape of Singapore described above serves as the backdrop against which the study will be conducted. Based on the conceptual and theoretical literature on 'context' and the empirical evidence of the impact of contextual changes in UK on the role of heads of department in schools, it is reasonable to assume that the effect from educational reforms, particularly the

external impact of the *School Cluster* system on the role of heads of department in Singapore will be significant. Of interest for the study would be how the *School Cluster* concept has impacted the work culture in the cluster schools and the training needs of heads of department.

2.2.3 School Clusters

The literature reveals that the concept of school clusters as a strategy for collaboration among schools is evident in education systems in many parts of the world. Although they may differ in name, form and programmes all school clusters appear to have a common purpose of alleviating the standard of education in their respective countries. In the UK, the Scottish Council for Research in Education's (SCRE) evaluation study on school clusters from 1996 to 1998 investigated the experience and practice of headteachers in managing change in small primary schools with support from clusters. The clusters are set up through 'the formation of development groups usually composed of several primary schools and the secondary school which most of their pupils will attend' (McPake, 1998, p.1). These groups called 'clusters', 'cooperatives' or 'associated school groups' in different authorities, are formed 'to support the implementation of the 5-14 guidelines, sharing the tasks of developing curriculum materials, approaches to assessment, etc across several schools, and ensuring that primary and secondary developments complemented each other' (McPake, 1998, p.1). Their development in different authorities depends in part on authority policy, and partly on the personalities involved. The study reports that some authorities are 'extremely supportive of cluster arrangements, helping to devise structures and to ensure regular meetings. Funding - to provide some cover time, transport costs for attending meetings and...to support the use of information and

communications technologies...- is a necessary complement to a stated policy of support for collaborative arrangements. In authorities where such funding was not available, and where restrictions were placed on the times at which clusters could meet (for example, not in PAT) clusters have withered' (McPake, 1998, p.1). The headteachers have found the clusters highly beneficial in facilitating networking as it 'helped to break down isolation and saved a considerable amount of time. Opportunities for working together, sharing resources and "lending" staff (particularly from the secondary to the primaries) had made a considerable impact on some schools' (McPake, 1998, p. 2). For these headteachers a key 'coping strategy' is to discuss new initiatives with others working in similar circumstances and to learn from their ideas and experience. These findings suggest that small schools benefit in terms of curriculum and staff development, shared planning, shared resources, and increased opportunities for social contact and conclude that 'in the current context, encouraging networking is likely to be one of the most effective ways of supporting the management of change in small primary schools' (McPake, 1998, p.2).

Another study - the evaluation of Glasgow City's school cluster project in 2000-2001 on four Learning Communities including two initial pilot clusters also reports benefits from collaboration. Two school clusters were originally formed in 1999 through the reorganisation of the management of schools into local clusters called Learning Communities in a major pilot project aimed at improving the educational achievement of children in the city. Each cluster consists of a secondary school, associated primaries and pre-five establishments. These Learning Communities vary in size and composition, for example, one particular Learning Community has 12 primary schools, two nursery classes and two nursery schools in addition to the secondary school. Each cluster is headed by a principal and is supported by a small funding

(Baron et al, 2002). The evaluation finds that clustering enhanced collaborative effort in the Learning Communities in a number of areas of significant development, among which are joint staff development and productive collaboration achieved through priority working groups and joint curriculum initiatives, and the emergence of collective development planning (Baron et al, 2002).

Similarly a HMI inspection in 2002 and 2003 of ten of the first round Excellence Clusters after one year in operation reported that in terms of overall quality of Excellence Cluster work, Excellence Clusters 'are settling in well, and beginning to make a difference in pupils' education and life chances' (OFSTED, 2003, p. 21). School clusters or 'Excellence Clusters' in England were started in 2001 with 11 clusters as part of the Excellence in Cities (EiC) programme which is 'a targeted programme of support for schools in deprived areas of the country' (DfES, 2003, p. 1) using a structured programme to raise standards. Formed as partnerships between groups of schools, their local education authority (LEA) and other organisations, these clusters are linked through serving communities with similar problems although they are sometimes geographically spread. Each cluster comprises at least one core secondary school identified by the Department for Education and Skills (DfES) for its history of underperformance or disadvantage and one good secondary school, which is often a beacon or leading edge school, as well as a number of partner primary schools (OFSTED, 2003). Varying in size 'most have between 12 and 15 schools, but some have as few as 5 or as many as 20' (OFSTED, 2003, p. 4).

The work of Excellence Clusters centres around four learning strands. Three are main core strands of the (EiC) programme namely: provision for gifted and talented pupils; mentoring of pupils; and learning support units. A fourth strand is tailored to meet

the needs identified in the cluster (TeacherNet, 2003; OFSTED, 2003). Each cluster is managed by a non-statutory body, called the Partnership comprising headteachers of participating schools, the LEA and a member of the local EAZ and chaired by one of the headteachers (OFSTED, 2003). HMI also reports positively on networking, finding that regular meetings for lead personnel in schools were 'good opportunities for school staff to develop shared policies, agree methods of working and hear about good practices locally and further afield. These networking meetings are an important part of the professional development provided by Excellence Clusters' (p. 11).

School clusters widely spread across the four metropolitan regions in Australia also facilitate collaborative ventures among groups of schools. For example, the 'Schools for Innovation and Excellence' initiative implemented in 2003 in Victoria 'supports primary and secondary schools to work together in clusters over three years to deliver innovation and excellence in Victorian education' (State of Victoria DET, 2002, p.1) and provides appropriate funding for the development of strategically effective education programmes to advance student learning. Currently, every Victorian government school is in a cluster and there are a total of 247 clusters in operation (State of Victoria DET, 2002).

Similarly in the US, school clusters are widely established across the country with objectives which include enhancement of learning and teachers' professional development. Also, there are agencies in the U.S which are active in setting up school clusters outside the U.S. for example, the U.S. Agency for International Development (USAID) promotes professional development clusters in countries such as Republic of Guinea, introducing clusters there in 1999 to help them become Learning Communities and also in Pakistan and Haiti (EQUIP, 2004). In Guinea, about 1342

clusters are providing 'a much-appreciated mechanism for professional dialogue and collaborative problem solving particularly in isolated rural areas' (p.2) which has changed teachers' practices and developed strong professional relationships. In Pakistan, clusters introduced in early learning environments such as primary schools, have facilitated resource mobilization and cluster based training for teachers within the clusters, and created support networks. In Haiti, the cluster school approach has also resulted in closer professional relationships at school and community levels.

Recognising networking as one of the key benefits of school clusters, Sadinsky and Tuke (2003) writing on their Powerful Schools model for sustainable reform, offers a number of strategies for change among which is to 'work with clusters of schools and community organizations, not one school at a time. This combination of schools and community groups provides the support and external stimulation to achieve substantial change and maintain it when resistance arises' (Sadinsky and Tuke, 2003, p.1). They find that 'school clusters promote rapid dissemination. When schools work closely together, ideas can be piloted and refined in one school, then disseminated and accepted quickly in the partnership schools because of pre-existing relationships among the schools' leadership' (Sadinsky and Tuke, 2003, p.1).

In Australia, the benefit of schools working closely together is shown in The Middle Years Research and Development (MYRAD) Project 1998-2001 which seeks to develop and test a whole-school design approach for middle years (Years 5-9) reform. The strategies which have contributed to improvements in the middle years include: primary-secondary cluster co-operation, planning and consistent approaches across the whole cluster; leadership teams stimulating, motivating, supporting and sustaining reform in the middle years and provision of support (State of Victoria DET, 2002).

The Media in Education Trust's (MiET) research project to investigate the effectiveness of the school clustering strategy in South Africa states that clusters are being used by many NGOs involved in teacher development as an organisational tool in their delivery of training (MiET, 2004). 'It is believed that clustering can help address the often limited or insufficient impact of cascade training by providing the teachers with additional support' (p. 1). MiET reports that in the provincial and regional departments of education, school clusters are established as a way to enhance service delivery as 'the clustering strategy fits well with a move to decentralisation of educational services' (p. 1); it helps to solve the shortfall in district personnel, lighten the administrative burden and maximise limited resources by pooling them.

However the reports above also reveal some weaknesses of school clusters. One weakness appears to be the need for more support such as more time. For instance, although Excellence Clusters are found to be satisfactorily led and managed by headteachers of participating schools, the HMI study concludes that 'it is too much to expect these same headteachers to co-ordinate the daily work of the cluster, to manage and monitor the everyday work of strand co-ordinators, and to analyse the data to demonstrate the effect of their decisions.' (OFSTED, 2003, p. 21). Time constraint appears to be a problem also for teachers as it is found in the 'Gifted and Talented pupils' strand that 'co-ordinators in secondary schools often find it hard to make time to engage with large numbers of teachers and build on the wide range of experience and expertise they encounter' (p. 13). The MiET research project also identifies time constraint as a clustering problem, stating that 'while clustering seems to offer the solution to the problems of teacher isolation, lack of resources and insufficient support for schools, questions remain as to whether it is indeed a

sustainable strategy especially for deep rural schools. The costs of travel between far-flung rural schools, the time it takes to co-ordinate cluster activities, are all difficulties that clusters encounter' (MiET, 2004, p.1). Also identified for attention is clarity of role definition. For example, the Glasgow City evaluation finds that there is 'a need to clarify the roles of key players in the Learning Community... ' (Baron et al, 2002, p. 2) while the HMI inspection finds that 'headteachers are not always clear what they expect of the beacon or leading edge school in the cluster' (OFSTED, 2003, p.12).

It appears from the above description of school clusters in the international scene that the clusters are similar to school clusters in Singapore. The common features are firstly, that the clusters consist of a mix of types of schools such as secondary and primary schools and their objective is to improve the quality of education for pupils through collaborative ventures such as professional and staff development programmes, networking and professional sharing among teachers. However, the school clusters in Singapore differ significantly from the other school clusters in that the aim of school clusters is not just to achieve more creative ways of delivering education to pupils but also to achieve administrative excellence. As emphasised by the Minister for Education, Teo Chee Hean,

> 'Excellence in school management - in all our schools, and the school
> system as a whole - is a strategy towards realising our vision of
> Thinking Schools, Learning Nation'.

(Goh, 1997, p. 1)

In Singapore, the approach adopted for all government ministries and departments is

to develop as autonomous agencies with authority to decide on how their allocated resources are to be used (Goh, 1997). Prior to the formation of school clusters,

> 'Principals have a certain level of authority to make decisions. Beyond that they have to refer to the Ministry. Being a large Headquarters, decisions on the use of resources, and responsibility and accountability for outcomes are spread among a number of different departments and persons. The span of control of the Ministry is also very wide. We want to move decision making closer to the schools'.

(Goh, 1997, p.1)

As a result, school clusters reflect a management structure where decision making is decentralised, and they operate like autonomous entities with the flexibility to make certain financial decisions without having to refer to the Ministry of Education as well as greater say in the deployment of teachers within each cluster (Goh, 1997). Instead principals now refer to their respective superintendents who head the school clusters.

The literature on school clusters offers useful reference points for the study of the role of heads of department in secondary schools within a 'school cluster' context in Singapore. Of concern to the intended study about this new management system would be how the collaborative effort will impact the role of heads of department and the expectations on their role, and whether participation in cluster work will undermine departmental and school work. Pertinent research questions could focus on what work heads of department do in school clusters and what constraints they

face in carrying out their role. Next, the literature on 'contemporary schools as learning organisations' and whole school research will be discussed.

2.3   Contemporary Schools as Learning Organisations

According to Senge (1990, p. 3) learning organizations are: '...organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together'. The basic rationale for learning organizations is that in situations of rapid change only those that are adaptive, flexible and productive will excel and for this to occur, organizations need to find out how to tap their people's commitment and capacity to learn at every level. Senge asserts that real learning gets to the heart of what it is to be human and that we: individuals and organizations, become able to re-create ourselves. Therefore, for a 'learning organization it is not enough to survive. "Survival learning" or what is more often termed "adaptive learning" is important - indeed it is necessary. But for a learning organization, "adaptive learning" must be joined by "generative learning", learning that enhances our capacity to create' (Senge 1990, p.14). The dimension that distinguishes learning organizations from more traditional organizations is the mastery of some basic disciplines or 'component technologies'. The five that Senge identifies are: systems thinking, personal mastery, mental models, building shared vision and team learning. All the disciplines are, 'concerned with a shift of mind from seeing parts to seeing wholes, from seeing people as helpless reactors to seeing them as active participants in shaping their reality, from reacting to the present to creating the future' (Senge 1990, p. 69).

A literature review of over 300 studies of schools as learning organisations by Cibulka et al (2000) reveals the following key findings:

- Support for schools as learning organisations is best achieved by prescribing desired attributes and focusing on how to develop them.

- Improved student learning should be the focus, and all available information of how students learn should be utilized.

- Learning is continuous; a learning organisation's task is to learn, and to provide lifelong learning among all its members.

- Strong leadership is required to build and sustain a learning organisation including the creation of positive conditions and opportunities.

- The culture of a learning organisation is characterised by an 'ethic of caring' by all its members.

- The development of a viable learning community requires educational leaders to engage in an ongoing and reflective learning process to recast themselves as leaders as learners.

- The psychological support teachers need as they learn is evident in the increasing use of action research as part of their learning.

Whole-school reform: Professional Learning Communities

Current approaches to effective school innovation and reform can be seen as the outcome of several decades of concerted educational research although there has been criticism that reform has not been substantive and has changed little in schools (Crowther et al, 2001). For a decade following the 1966 Coleman Report (Uline et al, 1998) the argument was that the impact of schools on student achievement was much

less than that of student background. It was only in the late 1970s that it was acknowledged that schools do make a difference in student achievement. In the 1980s, in both the private corporate world and the public education sector, attention shifted to the influence of work settings on workers (Hord, 1997). Research focused on an increasingly wide range of educational, cultural and social variables that seemed to impact on student achievement, such as school goals, instructional leadership, shared governance and parental involvement (Uline et al, 1998).

Whole-school reform can be viewed broadly as a diverse set of nationwide and local programmes which are cross-disciplinary efforts that involve home, school, and community in the intellectual and personal development of all children (McChesney, 1998). This approach takes an integrated view of the reform process based on the concept that to successfully improve school performance is to simultaneously change all elements of a school's operating environment in order to bring each element into alignment with a central, guiding vision (Keltner, 1998). Underpinning these reform efforts is the belief that gains in student outcomes require a reconceptualization of traditional notions of teaching and learning (Cooper et al, 1998).

In whole school improvement, student outcomes depend on the professional leadership, management and integration of financial, physical, human and intellectual resources. These in turn depend on planning, governance, accountability and review arrangements, which are influenced by the school's relationships with its immediate, local and wider communities. It is also essential that these elements are consistent with the school's visions and goals, and with the curriculum, teaching and learning, and professional learning arrangements. Whole school improvement then is about

continuous improvement of these important aspects of the school which contribute to the development of a 'learning organisation' climate (Knowledge Bank, 2006).

Rosenholtz (1989) maintains that teachers who feel supported in their own continuous learning and classroom practice, through teacher networks, cooperation among colleagues, and expanded professional roles are more committed and effective than those who do not. Rosenholtz finds that teachers with a strong sense of their own efficacy are more likely to adopt new classroom behaviors and be encouraged to stay in the profession. Collaborative inquiry among experienced teachers can result in a body of wisdom about teaching that can be widely shared.

Thus, new initiatives are looking to a new strategy - professional learning communities - for adopting and implementing potentially powerful programmes and practices for students. The term 'learning community' has attracted different definitions such as: extending classroom practice into the community, utilizing community resources, both material and human; bringing community personnel into the school to enhance the curriculum and learning tasks for students; and having students, teachers, and administrators reciprocally engaged in learning (Hord, 1997). Teachers will need to engage in school wide collegial activities and in joint professional efforts that have children's learning as their purpose (Jalongo, 1991). This strategy involves investing in teacher preparation and professional development, as well as permitting greater autonomy and decision making for teachers.

Darling-Hammond (1996) cites shared decision making as a factor related to curriculum reform and the transformation of teaching roles in some schools, where there is structured time for teachers to work together in instruction planning, peer classroom observation, and sharing feedback. Darling-Hammond notes that there is

greater attention to redesigning the way teachers spend their time and to rethinking teacher responsibilities now than in the past when often, only rhetorical attention is given to the change process resulting in short-term school wide change efforts that lack full staff participation. Astuto, et al (1993) suggest the concept of a 'professional community of learners', wherein teachers and administrators, continuously seek and share learning, and enhance their effectiveness as professionals for their students' benefit. A significant requirement for impact is the inclusion of the *whole* faculty: in developing the vision, understanding the mission and purpose for which they are engaging, and deciding how to carry out their reform plans (MacMullen, 1996). Successful school restructuring involves teachers meeting together as a whole staff or in teams (Peterson *et al*, 1996).

In the 1990s, research into effective school innovation and reform tended to focus more on within-school factors such as concepts of professional community and, more recently, organisational capacity (Newmann and Wehlage, 1995; King and Newmann, 1999; 2000). Research in Australia point to the interdependence of factors such as curriculum focus, school vision, professional development, resources and community benefits in contributing to improved school outcomes (Caldwell, 1998). For example international studies find that the 'academic superiority of Catholic schools' is substantially attributable to their capability to engage in collaborative development around a sense of common purpose (Gannicott, 1998, p. 5).

Newmann and Wehlage in their 1995 work 'Successful School Restructuring', link student achievement to the effective work habits of adults, stating that the most successful schools are those that adopt restructuring to help them as professional

communities. Newmann and Wehlage (1995) conceptualise successful school innovation in terms of four 'Circles of Support' with student learning at the centre:

i)   student learning that sets as its goal, high quality intellectual work;

ii) authentic pedagogy with teachers teaching according to a collaborative vision of quality learning;

iii) school organisational capacity which is developed and enhanced through collaborative professional community;

iv) external support such as critical financial, technical and political support which enhances organisational capacity by strategically setting standards for high quality learning and providing sustained, school-wide staff development and increased school autonomy through deregulation.

These schools which maintain a strong professional community are better able to offer authentic pedagogy and are more effective in promoting student achievement. Their teachers and leaders collaborate and help one another achieve the purpose of student learning and take responsibility for academic success.

Over the last twenty years, research on effective schools has concluded that effective schools are distinguished by a climate of shared values and norms that move staff and students in the direction of successful learning. Levine and Lezotte (1995) in a recent extensive review of research on effective schools, report that the most important thing that effective schools have in common is a culture which reflects shared values related to student learning. Their definition of a school's culture is an articulated vision of what the school stands for. The shared values and norms addressed in the literature pertain to three domains:

a) shared values related to goals for student learning and development,

b) shared understandings about how student learning can best be facilitated and

c) shared professional norms for teachers and their interaction.

a)   focusing on student learning and development

The most important value found in more effective schools is high achievement for all students in the school, that is, a commitment to both excellence and equity (Levine & Lezotte, 1995). In schools where students are pressed toward academic pursuits and expected to do homework, and where students place a high priority on learning, performance is higher (Newmann & Wehlage, 1995). Value placed on student achievement is matched in more effective schools by the belief that all students can learn to high levels and that, with adequate resources, the school can make such achievement possible (Levine & Lezotte, 1995; Binkowski, *et al*, 1995).

b)   shared understandings about how learning is facilitated

School effectiveness appear to be enhanced when teachers and administrators share common understandings of general principles upon which specific instructional strategies are based (Newmann & Wehlage, 1995). A recent review of the sources of success in schools undergoing significant changes points to the importance of teachers' use of what the researchers call "Authentic Pedagogy" (Newmann & Wehlage, 1995). "Authentic Pedagogy" or authentic instruction embodies social constructivist theories of learning and has a number of different forms but, generally it requires students to think, to develop in-depth understanding and to apply academic

learning to important real-life problems. The research summarised by Newmann & Wehlage, 1995 shows that authentic pedagogy enhances student achievement and can be delivered equitably thereby contributing to more equitable distribution of achievement for all learners.

c)   shared professional norms for school personnel

The professional norms in more effective schools evolve naturally out of the values and beliefs discussed above. The unity of purpose in such schools to increase student achievement is manifested in unusual commitment of staff time and energy (Binkowski, et al, 1995; Levine & Lezotte, 1995; Wang et al, 1993). Building professional norms that support student achievement, and collegial norms that support interaction and professional growth of teachers, depends on teachers' will and commitment as well as good leadership (Saphier & King, 1985).

The relations among staff in schools provide behavioural models for students and determine a school's readiness to undertake and sustain efforts to achieve shared goals. The core professional norms include collegiality, high expectations for and recognition of teaching performance, experimentation with new ideas, professional judgments, reaching out to the knowledge base in teaching, participation in decision-making processes in school, honest communication and caring for and celebration of each other (Rossi & Stringfield, 1995). The level of professional community in a school has significant effects on student achievement. In schools where teachers report high levels of collective responsibility for students learning (a key criterion for professional community), learning is greater in mathematics, science, reading and history (Newmann & Wehlage, 1995).

d) Leadership Contributions to the Formation of Core Values and Beliefs

Principals in effective schools are often those who succeed in achieving shared vision and purpose and consensus about fundamental processes through listening and working with their staff, students and parents. Forward looking principals who are persistent can succeed in changing staff attitudes and building shared beliefs among the staff for student outcomes (Rossi & Stringfield, 1995). In effective schools, principals believe that their most important task is creating and maintaining a school culture where staff members have school goals that become more important than their own self-interests and where, teachers work together to accomplish school missions (Ogden & Germinario, 1994). From a review of the literature, Hord (1997) lists the features of academically successful professional learning communities as:

- the collegial and facilitative participation of the principal who shares leadership - and thus, power and authority - through inviting staff input in decision making;

- a shared vision that is developed from an unswerving commitment on the part of staff to students' learning and that is consistently articulated and referenced for the staff's work;

- collective learning among staff and application of the learning to solutions that address students' needs;

- the visitation and review of each teacher's classroom behaviour by peers as a feedback and assistance activity to support individual and community improvement;

- physical conditions and human capacities that support such an operation.

By holding these core values and beliefs teachers and administrators can foster an awareness of these cultural norms in their daily interactions, thereby contributing to a professional community that improves student learning.

The literature on 'contemporary schools as learning organisations' and 'whole school research' offers useful reference points for the study of the role of heads of department in secondary schools within a 'school cluster' context in Singapore. Pertinent research questions could focus on what is the work culture in school clusters and to what extent there are shared values and norms. In the next section, various theoretical models on the middle manager's role in education will be discussed. The review is relevant to the study as these models will not only provide a better understanding of the different aspects or dimensions of the middle manager's role in education, but also alternative perspectives for conceptualising the role of cluster heads of department who perform middle management roles in their schools.

2.4   Theoretical Models of Role of Middle Managers

The term 'middle management' implies a hierarchy, by which authority is devolved from above, given by position or role, or given by those 'below' as an acknowledgment of the role-holder's worthiness (Bennett, 1995). Bennett considers management as a two-way process, whereby a downward flow of authority is coupled with an upward transmission of information. Models of the heads of department's role generally focus on structural organisational aspects of the role. For example, Morris and Dennison's (1982) model of the role of secondary school heads of department includes a professional role as a teacher in the classroom, an organisational role for management of the department, a corporate role as a middle

manager in the administrative structure of the institution, and a personal role. The Teacher Training Agency's (1998) model describes the subject leader's role as: strategic direction and development of the subject, teaching and learning, leading and managing staff and deployment of staff and resources.

However, the leadership of middle managers has been gaining recognition as a key driving force behind school improvement (HMI Wales, 1984; Earley and Fletcher-Campbell, 1989; Turner, 1996; Busher and Harris, 1999; Brown *et al*, 2000; Wise and Busher, 2001). The role of the head of department 'lies at the very heart of the educational process' (HMI Wales, 1984, p. 21) and terms such as 'kingpins', 'boiler house', 'engine room', 'hub of the school' have been used to describe the key role played by the head of department in school success (Earley and Fletcher-Campbell, 1989, p. 215). Turner (1996) describes the role as 'delegated responsibility for the introduction, implementation and evaluation of a variety of educational policies at the subject level...a vital aspect of school improvement' (p. 204) and Busher and Harris (1999) emphasise the leadership aspect of the role as overseeing and developing the work of their colleagues 'within a complex matrix of leadership and accountability' (p. 307) although they are not members of the senior management team overseeing the overall strategic development of the school.

Thus the focus is shifting more to the heads of department's leadership role and the link between departmental leadership and differential performance of departments (Bennett, 1995; Harris *et. al*, 1995; Turner, 1996; Sammons *et al*, 1997; Harris, 1998) in contrast to earlier research which focus on their responsibilities and the lack of time to manage (Busher, 1988; Earley & Fletcher-Campbell, 1989). While the head teachers' leadership is acknowledged as contributing to overall school performance,

the head of department's influence is seen as impacting departmental performance through what Siskin (1994) terms, the 'realm of knowledge' because of the subject boundary. The department is, as Huberman (1990) asserts, 'the unit of collaborative planning and execution...where people have concrete things to tell one another' (p. 5).

However, the complexity of perspectives confronting middle managers in schools requires them to employ a variety of leadership styles and carry out a range of management functions to effectively manage change in different contexts. Contingent leadership theories, pioneered by Fiedlier (1967), which theorise that effective leadership can only be seen in the context in which it is being effected, suggest that leaders change their leadership styles according to the situation or context and they reflect 'how leaders respond to the unique organizational circumstance and problems that they face' (Leithwood *et al*, 1999, p.15). For example Harris *et al*'s (2000) study on school heads finds that transactional leadership is adopted to ensure the smooth running of schools and that 'systems were maintained and developed, targets were formulated and met' (p.15) while concurrently, transformational leadership is adopted to build esteem, autonomy and achievement among staff and students through empowerment and collaboration. Further insight into the leadership role of heads of department can be gained from the discussion of the theoretical models that follow.

Leithwood *et al* (1999) propose six models of leadership relevant to subject leaders: namely, instructional, transformational, moral, participative, managerial and contingent. Instructional leadership is related to subject leaders' ability to effectively lead as an expert in subject pedagogy while transformational leadership describes ability to inspire commitment and ownership of department goals through articulation of a clear vision for teaching and learning. Moral leadership and participative

leadership are concerned with how subject leaders encourage departmental democracy, and decision making respectively. Managerial leadership is related to subject leaders' functions, tasks and behaviours, and contingent leadership on subject leaders' use of various strategies for problem-solving depending on the situation.

Similarly, Glover *et al*'s (1998, 1999) model suggests a contingent, intuitive approach to leading, supported by a good grasp of and an ability to balance the use of a variety of leadership styles. Glover *et al*, (1998) see middle managers acting intuitively in their relationships to motivate, inspire, and support teams to achieve effective teaching and learning. They identify four patterns of leadership: demonstrating concern for supporting people and achieving results; acting according to the maturity of subordinates; involving staff in participatory activities; and shaping and sharing the vision respectively.

Busher and Harris' (1999) typology, drawing upon the work of Glover *et al* (1998), distinguishes four dimensions of the head of department's work: translation, fostering collegiality, improving staff and student performance, and a liaison role. Translation involves a bridging and brokering, or mediational function through which middle managers exercise 'power over' (Blase & Anderson 1995) department members, translating and negotiating the perspectives and policies of senior staff into the practices of individual classrooms (Harris, 2000). The second dimension requires departmental heads to 'foster collegiality within the group by shaping and establishing a shared vision' (Busher and Harris, 1999, p.307) through transformational leadership using 'power with' or 'power through' others to build a collaborative departmental culture (Blase and Anderson, 1995). The third dimension concerns their mentoring or supervisory leadership role using their 'expert knowledge' and 'referent power'

(Harris, 2000 p. 83) to improve performance while the fourth dimension is a liaison or representative role involving the function of 'advocacy' (Bradley and Roaf, 1995) by which departmental heads communicate to senior staff and others within the school and external agencies, the agreed values, views and preferred practices of their colleagues so as to gain support for their successful implementation (Busher, 2001). These four role dimensions are both 'complementary and potentially competing in their demands' (Busher and Harris, 1999, p. 308; Harris, 2000 p. 83) reflecting the complex and multifaceted role of middle managers in schools.

Busher and Harris with Wise (2000), building on Glover *et al*'s (1998) model, developed a pentagonal model of the role of the subject leader based on a relationship perspective involving bridging or brokering through transactional leadership, creating social cohesion through transformational leadership, mentoring, creating professional networks, and using power.

Busher and Harris' (2000) typology of the role of the head of department is built on departmental factors such as departmental structures and cultures which draw on issues of power and micro politics in exploring what may be appropriate management practice (Bennett, 1995). Variations in departmental structures and cultures differentiate the job of each head of department 'contextually', and affect their potential leadership performance differently. Busher and Harris identify four main parameters delineating departmental cultures: structural configuration; degree of departmental cohesion; status or esteem in which a department is held, and power.

Firstly, different structural configurations of departments in secondary schools suggest that heads of department have 'widely differing arenas' (p. 309) in which to

exercise their power as illustrated by types of departments such as: federal, confederate, unitary, impacted, and diffuse. Federal departments are large units such as science departments which support the teaching of several subject areas, have homogeneous cultures and a centre sufficiently powerful to ensure that departmental members work as a unit in key decisions. Confederate departments such as design and technology departments, are characterised by large multi-subject departments with heterogeneous cultures, uncommon subject areas allied together and a 'centre' not sufficiently powerful to ensure that departmental members work together on key decisions. Unitary departments such as, English departments are large-scale, single subject departments with a well-developed homogeneous culture and complementary formal and informal processes. Impacted departments are smaller than unitary ones teaching a single subject area such as Music, with leadership constrained into a network of informal processes. Diffuse departments have no identifiable base and lack a sense of subject identity for example, Information Technology departments.

Heads of department however, are able to 'transcend' the formal structures and impact departmental cohesion by creating and managing departmental culture. They employ transformational leadership and model the importance of the moral dimensions of collegial working (Hodgkinson 1991). Importantly, subject-oriented cultures create staff identities as teachers hold the subject department rather than the school, as the central and immediate unit of organisation (Little 1995) and their professional home (Siskin & Little 1995); it is a very powerful social relations unit in schools (Goodson, 1996) from which friendship groups and collegial working relationships or inter-personal rivalry and disparate working cultures can develop (Blasé & Anderson 1995; Stoll & Fink 1996).

The status or esteem of a department also plays an important part in determining the quality of relationships between a department and the rest of the school (Busher and Harris, 1999). Status is accorded relative to the academic and technical performances of its students, its contribution to extra-curricula activities, and the quality of profile it gains for the school with its local community. Accordingly, departmental status translates into organisational power in gaining extra resources reflecting heads of department's important mediating role between the demands of the subject area and the demands of the school on their staff (Busher and Harris, 1999). Goodson (1996) state that subject departments perform an administrative function, providing the structures and channels for managing teaching and learning as well as for communication between staff. With control of these communication channels, heads of department can influence and shape the professional interactions and perceptions of staff and also enhance their bargaining power for increased resources.

Brown and Rutherford (1998), offers a behavioural typology of leadership of the head of department based on Murphy's (1992) typology of the leadership and managerial roles of school principals in USA which posits four inter-related leadership and managerial roles: servant leader, organizational architect, moral educator and social architect that reflect best practice but with emphasis on building relationships. Brown and Rutherford's typology adds a fifth role of 'leading professional' which reflects the head of department's role in improving standards in the TTA's (1996) proposals. Their typology emphasises the values of empowerment, ownership, partnership, belief in education and the worth of learning, which underpin the head of department's role. Murphy argues that servant leaders do not lead from the apex of the traditional pyramid but from the nexus of a web of interpersonal relationships, using as their base of influence, professional expertise rather than line authority to empower staff to

bring out their latent, creative abilities. Organisational architects create new organic forms of departmental structure which are flatter in which leadership is widely shared to promote a greater degree of ownership and staff commitment. Moral educators are motivated by personal values and beliefs and demonstrate the ethic of care to all staff and pupils. Social architects develop integrated networks of partnerships and in particular, forge effective home-school links with parents. Leading professionals are up-to-date with curriculum development and play a developmental role, focusing on improving teaching and learning (Brown and Rutherford, 1998).

Turner and Bolam (1998), use contingency theory for their model of the work of subject heads of department in leading and managing their departments (see Figure 16, p. 340) which 'proposed that leaders work in ways which were contingent upon a set of factors prevailing in a school at a particular time' (Turner, 2003, p. 210). This model bears similarities to Sammons *et al*'s (1997) whole-school model of school effectiveness in that a number of contextual and process factors are identified as affecting student outcomes. However the difference is on its emphasis on the subject leader's core task of leading and managing the department to achieve high standards of teaching and learning. The model highlights 'input' factors such as external pressures created by recent Government policy towards the professional development of teachers, inspection and target setting, and 'process' factors which look at the personal characteristics of the individual heads of department, the tasks to be carried out, the methods adopted to improve teaching and learning and interpersonal relationships with other staff (Turner and Bolam, 1998).

The final perspective views the subject leader as a strategic manager involved in strategic thinking that is, long-term planning from a whole-school perspective

(Middlewood, 1998). However the extent of the subject leader's role in whole-school policy making and decision making is questionable as they appear to be more involved with the implementation of strategy at the departmental level than with its creation (Turner, 2003). Earley (1998) identifies three key determinants of the subject leader's whole-school involvement: the structure of the organisation, the SMT's management style, and the culture of the school. Planning at the departmental level is more likely to be on short-term tactical procedures rather than longer-term strategic planning, influenced by priority for examination achievements from the SMT and parents, although subject leaders are expected to set 'long-term plans for the development and resourcing of the subject' (TTA, 1998, p. 10). Although there is a need for departmental policies to be developed in line with school policies (Field *et al*, 2000), the extent to which departmental development plans match school development plans is either not known or very tenuous (Brown *et al*, 2000).

The above typologies offer a range of frameworks for analysing the role of middle managers. They demonstrate that there is no one perfect model of the role of the head of department and suggest that the role of the head of department can be viewed from various perspectives. The typology developed for the present study will fall back on these frameworks for its development. The usefulness of contingency theory in explaining the role of heads of department as illustrated in Turner and Bolam's (1998) model will also be kept in mind as the study is being conducted in a context which may be very different from the UK context. The typology will depend on the nature of the role as interpreted by the heads of department and perceived by the researcher, as well as existing knowledge about the role in secondary schools and upon the chosen focus for the analysis, just as the typologies reviewed represent a focus upon structures, systems or values, knowledge or social agency. For existing knowledge

about the role in secondary schools, empirical literature pertaining to the middle manager's role in schools particularly in UK is reviewed next.

2.5 Empirical Research

Empirical literature depicts the role of the middle manager in education as one filled with challenges and difficult to fulfill. These challenges have been linked to the growing problems which schools face; the trend towards modern democratic styles which expect heads of department to possess greater skills and adaptability; the ambiguity in the definition of the role of departmental heads and the comparative lack of training for middle manages in schools (Bloomer (1980). Siskin (1993) contends that heads of department have 'hermaphroditic roles'. As Brown *et al* (2000) argue, it is 'neither fully teacher nor fully administrator, yet operating as a conduit for the tensions in the relationship between the two' (p. 240). It is a highly skilled role involving a large managerial component for which heads of department require adequate training (Earley and Fletcher-Campbell, 1989). As Turner (2000) contends, 'it would be difficult to conceive of a department which operated effectively if the heads of department were not themselves a competent subject leader' (p. 6) and departmental ineffectiveness is because 'the person who is responsible for the curriculum area is unable to provide the management and leadership skills which the departmental team needs' (p.7).

Although many writers claim that school improvement requires that change takes place at the different levels that is, at school, department, and classroom levels within the school (Creemers, 1992; Hopkins *et al*, 1994, 1996, 1997; Stoll & Fink, 1997), recent research evidence links variations in school effectiveness to differences within

schools, particularly at the department level. The potential at departmental level to influence whole-school development and performance has been highlighted by Huberman (1990) and heads of department are seen as an important influence on departmental effectiveness through their sphere of influence or 'realm of knowledge' with its direct impact on the quality of teaching and learning within a subject area (e.g. Creemers, 1992; Scheerens, 1992; Harris *et al*, 1995; Sammons *et al*, 1997).

Harris *et al*'s (1995) small-scale study of six effective departments, attributes heads of department's influence on departmental effectiveness to success factors such as: 'a collegiate management style; a strong vision of the subject effectively translated down to the level of the classroom; good organisation in terms of assessment, record keeping, homework, etc; good resource management; an effective system for monitoring and evaluating; a syllabus matching the needs and abilities of pupils; and opportunities for autonomous pupil learning' (p. 297). Two other features indirectly attributable to the heads of department are 'structured lessons and regular feedback; clear routines and practices within lessons' (p. 297) both indicators of good practice reflecting effective departmental teamwork and subject staff's commitment to high standards of teaching. Effective departments are thus 'good at either working with or neutralising external influences' (p. 297). Harris *et al* find that although the schools are broadly supportive, there are also effective departments in some schools which do not appear to have very supportive or collegial senior management teams (SMTs). They find that there is no clear relationship between whole school and departmental effectiveness and the departments are largely successful because of their own efforts.

In Sammons *et al*'s (1997) study in six case study schools, characteristics of effective and less effective departments are investigated and heads of department's influence

on departmental effectiveness is evaluated based on their value added to the pupils'

GCSE scores over a three-year period. Sammons *et al* find that supportive whole-

school effort is important in departmental effectiveness as 'in some schools it was

much easier than in others for all departments to function effectively' (p. 99). They

suggest that the success in some departments can be attributed partly to the supportive

whole-school emphasis on teaching and learning and partly to the impact of support

that successful departments gave to each other.

Harris' (1998) small-scale study which investigated the characteristics of eight

ineffective departments finds that they have some similar features and also certain

failure characteristics. The general features directly attributable to the subject leader

are: 'inappropriate leadership and management styles; lack of vision for the

department and the less effective departmental subject(s); poor communication within

the department; poor organisation; inadequate system for monitoring and evaluation;

non-collegial departmental climate; no leading professional within the department;

and absence of professional development and learning' (p. 274), features which seem

to reflect a lack of management and leadership skills on the part of the subject leader.

Moreover some of the characteristics are the reverse of effective characteristics

identified in the earlier studies of Harris *et al* (1995) and Sammons *et al* (1997).

Harris finds additional failure factors related to the quality of teaching (e.g. lack of

team teaching and professional sharing); teaching relationships (e.g. lack of teamwork

and departmental staff working in relative isolation); and no training and professional

development. Thus, a central reason for the under- performance within these less

effective departments is the absence of collegiality or collegial relationships and

professional dialogue about teaching and learning points.

The importance of collegiality or collegial relationships and professional dialogue in enhancing teacher and school capability is supported by other studies (e.g. Earley and Fletcher-Campbell, 1989; Turner, 1998, 2003; Campbell *et al*, 1992; Ralllis, 1995; Teo, 1999). Collegiality has been variously defined as: friendly staff relations, closely coordinated co-teaching (Johnson, 1990); team teaching, collaborative planning, peer coaching (Joyce and Showers, 1988); mentor relationships (Wildman *et al*, 1989); professional dialogue and collaborative research (Joyce and Showers, 1980); teachers working together including staff room talk and conversation outside the classroom (Johnston, *et al*, 1996); as well as help and advice regarding resources (Castle, 1997). The NFER research finds that sharing by heads of department, well-organized meetings and the sharing of responsibilities characterise effective departments (Earley and Fletcher-Campbell, 1989). Campbell *et al* (1992) in their ethnographic study on collegiality, identify seven characteristics of a culture of collaboration which include: valuing individuals as people and for their contributions, appreciating the need for interdependence, providing a sense of belonging, collective responsibility for the work of the school and teamwork, valuing security, a condition necessary for the growth of openness and accepting the head's authority. Other writers have highlighted the value of networking and sharing of professional ideas. Huberman's (1993, 1995) network of teachers from various schools share on practice for professional growth while Ellis' (1996) focused discussion groups dialogue around educational issues. Rallis' (1995) learner-centered schools feature collegial collaboration, caring and growth as the ruling ethics of the organisation. Departmental meetings also facilitate sharing of good practice and promotion of a collegial climate of participative decision making and team spirit which have effectively raised standards of subjects such as English, Mathematics, Science and Technology in secondary schools in Wales (Turner, 1998). Teo's (1999) investigation of collegiality

and teacher development in Singapore schools and junior colleges finds a significant relationship between collaborative collegiality and teacher development. Teo finds that 'colleagues matter to teachers. They are a source of personal support, new ideas and subject-matter expertise' (p. 299) substantiating DuFour's (1997) observation that colleagues are a valuable resource in terms of sharing professional ideas.

Thus the ability to create a cooperative team and garner collegial support is one of the requisite skills that middle managers need to have for building a team within their department (Turner, 1998). Creating a positive departmental work climate through developing of good relationships with their colleagues in the same subject area is an important part of the subject leader's role as it is the nature of these relationships that reflects the micro political context that subject leaders work in (Turner, 2003). However the extent that heads of department are involved in collegiality and team building appears to be varied among schools. From the empirical evidence above, heads of department are in a position to 'play a central role in defining and sustaining collegial sub-cultures by ensuring that departments operate as socially cohesive communities where all members work collaboratively with a high degree of commitment' (Busher & Harris, 1999, p. 315). However in practice, the extent of their contribution in managing cultural change at both department and whole school is likely to 'vary according to the nature of the organisation, the management approach of senior staff and the culture of the organisation' (Busher & Harris, 1999, p. 314) as well as their leadership capability, for as Busher & Harris suggest, 'perhaps, levels of involvement are a function of the confidence, expertise and skill in management exhibited by the middle manager or subject leader' (p. 314).

For instance, the hierarchical organisational structures of schools generally make collegiality difficult to achieve as most decision making is done by the people at the higher levels by virtue of their status. The NFER study reveals that heads of department feel duty-bound to make most of the decisions while teachers feel that it is the middle managers' duty to handle the decision making although the more successful departments practise participative decision-making and have open discussions for staff. It also finds that most department and faculty heads acknowledge the value of decision-making within departments but are not keen about whole-school decision-making by middle managers (Earley and Fletcher-Campbell, 1989). As noted by Bennett (1999), the TTA standards for subject leaders, requiring line management accountability on the one hand, and promotion of collegiality and teamwork on the other, appear to create confusion in the area of decision making. They underline the highly complex and ambiguous nature of the subject leaders' role in which they are expected to play a liaison role, as both an arbitrator of whole school policy and as representative of the views of departmental staff to senior management.

Brown & Rutherford (1998) find that 'a reluctance of heads of department are to be involved in whole-school issues' (p. 86) is a cause of friction especially where heads of department regard whole-school issues as being dumped on them contrary to senior management team's view of empowerment. Brown *et al* (1999) find a wide variation in whole-school decision-making in their study of twenty-one schools in the north west of England. The schools are grouped under three levels of participation (high - Type A, medium-Type B, and low-Type C). The Type A school is characterised by more regular opportunities for collaboration among heads of department, strong commitment to the idea of team management, close collaboration between departmental priorities and the school development plan and a willingness to

empower staff compared to the other two types. The study finds that middle managers want a 'greater say in decisions about the school...subject leaders want bureaucratic approaches to leadership to be replaced by distributed leadership...' (pp. 328-329) However, Brown *et al* (2000) finds that distributed leadership (or shared power) among senior and middle managers in UK schools 'still remains rhetoric rather than practice' (p. 237) although in the schools where heads of department are members of the SMT 'there appeared to be a greater understanding and appreciation of the link between whole school issues and departmental issues' (p. 254).

Next, the literature review will look at the 'training and professional development' aspect of the role of heads of department as the extent of heads of department's contribution in managing cultural change in their schools is partly dependent on their leadership capability. As quoted above (see page 91) '... levels of involvement are a function of the confidence, expertise and skill in management exhibited by the middle manager or subject leader' (Busher & Harris, 1999, p. 314).

2.6 Training and Professional Development Needs of Heads of Department

The empirical literature in the previous section has highlighted the importance of leadership skills in the role of heads of department. However, even though the changing role of middle managers has made it imperative for career progression from teaching competence to department management, to whole-school decision-making (Leithwood, 1992), empirical evidence shows that a large number of middle managers in education are promoted from academic staff without adequate preparation or prior training for the job (e.g. Earley and Fletcher-Campbell, 1989; Glover *et al*, 1998; Adey and Jones, 1998; Adey, 2000). In spite of the ILEA's wide

range of management training courses in the UK since 1980, calls for appropriate training for heads of department (e.g. Myers, 1996; Turner, 1996) and the TTA's (1996) identification of training priorities for middle managers, training is still inadequate and unevenly distributed, given the large number of teachers with middle-management responsibilities to cater for (ILEA 1984; Ribbins, 1988; Adey (2000). In the absence of appropriate training, many new heads of department are 'thrown in at the deep end' (Earley and Fletcher-Campbell, 1989, p. 88), and rely on trial and error (ILEA, 1984), learning on the job (Bloomer, 1980; Glover *et al*, 1998), and watching others do the job (Adey, 2000). However, informal training such as 'on-the-job' learning' may have its usefulness in a development programme for middle managers in education as studies on the role of heads of department in UK universities have implied. For example, Deem's (2000) study finds that while only about one third of the sample received any significant formal training for their role most of them have engaged in important informal learning; and Smith's (2002) study suggests that 'one aspect of the development of heads which universities might usefully address is that of informal or 'on-the-job' learning' (p.308).

Harris' (1998) study finds a lack of emphasis on professional development of heads of department and that a contributory factor for the ineffectiveness of departments is the lack of management and leadership skills on the part of the subject leader. Adey and Jones' (1998) 1995 survey of the role of the professional development coordinator (PDC) in high and middle schools also find pressing professional development needs of middle managers particularly in three major areas: firstly in the knowledge and understanding about whole-school finance, development policy and priorities; secondly in the development of departmental policies and budgets within the whole-school framework; and thirdly in carrying out monitoring, evaluation and the

identification of development needs of their teachers (Adey, 2000, p. 419). Adey's (2000) follow-up questionnaire survey of middle managers in high schools in 1997 reinforced the long recognised lack of training for middle managers as 'for the 35 training items on the questionnaire, every item was rated by someone as an urgent training need' (p. 423) irrespective of the length of management experience or the size of the department. This is in contrast to Glover *et al*'s (1998) finding that the training needs of new middle managers are different from that of others longer in the role.

Glover *et al*'s (1998) study of the role of a middle manager and subject leaders' views of their own professional development needs in schools, find that their 'most common experience has been as a member of school-based 'hit and miss' management courses, offered as a basis for understanding increased responsibilities within the school' (p. 289). This finding is consistent with other research findings (e.g. Myers, 1996; Turner, 1996; Adey and Jones, 1998) that training and preparation for the subject leader position is very limited. They suggest a detailed analysis of the knowledge and competence required for subject leaders using the TTA (1998) standards as a starting point for the individual subject leaders to do a self-audit of their capability. Glover *et al* (1998) argue that for heads of department to move from administrator mode to the TTA's emphasis on 'leadership and organizational management development...as a focus of training' (p. 289), there is a need for 'an adaptation to a new professionalism' (p. 290) and provision of structured opportunities for them to reflect on their role and on what leadership and management skills will be required for them to be effective.

However, Harris *et al* (2001) note a growing trend towards school-based training courses jointly organised by LEA and higher education which contain an action

research element as well as debate about pedagogy. This trend is also observed in Bolam and Turner's (2003) study that subject leaders value opportunities to organise school-based in-service training on the five annual training days, as it can be tailored to the needs of departmental staff. However Turner (2003) questions headteachers' willingness to set aside time for such training, reflecting corroborative evidence in Brown *et al*'s (2000) study that opportunities for staff development are limited by lack of funding and/or lack of time despite the need to radically change the training and development of middle managers. These include both 'experienced' managers who continue to face new challenges within the department and at whole school level, as well as for teachers new to the middle manager's role (Adey and Jones, 1998).

In this respect, the leadership courses offered by the National College for School Leadership (NCSL) holds great promise for the professional development of school leaders. Launched in November 2000 by Prime Minister Tony Blair and David Blunket, NCSL is challenged to make itself a driving force for world-class leadership in England's schools. NCSL's Leadership Development Framework (LDF) is centred around the belief that schools should be supported in developing leaders at all levels (distributed leadership) and encouraging more teachers to take on leadership roles (NCSL, 2005). Hence it aims to provide continual training, development and support to school teachers with focus on honing leadership skills of school leaders by organising training programmes in partnership with other organisations (NCSL, 2001, p. 2). For emergent leaders, defined as those who manage a team, co-ordinate the work of a group of teachers in a single subject area or have pastoral or special needs responsibilities there is the Emergent Leadership programme. For middle managers, the Leading from the Middle programme, is a 10-month professional development programme for groups of two to four middle leaders in primary, secondary and

special schools with each group supported by a leadership coach in a mentoring role (NCSL, 2005). Although available evidence on externally-run management training courses seems to indicate that they do not have any real effect on the quality of leadership in school (Glover *et al*, 1998), the effectiveness of NCSL's programmes can only be gauged a few years down the road when it is evaluated.

In summary, the literature on the role of heads of department in UK schools shows a range of strategies adopted by heads of department which can account for departmental success or failure. Among the success strategies is a strong argument for a collegiate style of management and leadership. Also of importance is the impact of the environment particularly, the organisational culture and school management approach towards support, and the development of heads of department's leadership skills as their 'involvement' as argued by Busher & Harris (1999) is likely to depend on their confidence, expertise and skill in management (see p.93).

The empirical literature has revealed important aspects of departmental as well as organisational culture which are relevant and useful for consideration in the study. Heads of department in Singapore schools like their UK counterparts also play an important role in delivering the desired educational outcomes and the strategies they adopt towards this end will be of interest for the study. The study intends to investigate how the culture of the organisation and the management approach of school leaders influence how heads of department perform their role. Another relevant insight from the research literature pertains to the professional development needs of heads of department and the extent of support given to them to meet these needs. This is an important aspect of the heads of department role for consideration in the study, as heads of department in Singapore secondary schools are undergoing

contextual changes which are expected to bring new perspectives to their role with implications for adequate preparation for the role and continual training and professional development to keep up with the challenges of the role. The literature has shown that training and professional development of middle managers in UK schools has trailed behind the many educational changes over the past one to two decades. It is of interest to find out if the situation is similar in Singapore. Hence the study intends to examine the extent to which the training and professional development needs of heads of department in Singapore secondary schools are met.

The literature has provided direction for the investigation of heads of department's role in the Singapore context and helpful suggestions on the conceptual framework for the study. The likely research questions arising from the literature review will focus on the influence of school management/principal and cluster/cluster superintendent on the work of heads of department; the extent of collegiality in the work culture; the formalised training available to heads of department; and the extent to which the training enhances their competence in carrying out their role. In the next and final section of the literature review, the discussion will focus on the nature of the middle manager's role in schools. The relevance of the review from theoretical as well as empirical perspectives is that it can provide insight into likely tensions in the role that heads of department may experience in the Singapore context.

2.7   Nature of the Middle Manager's Role

In this section role theory is reviewed for the theoretical underpinnings of the nature of the middle manager's role. Role concepts and terminology will be useful in underpinning an understanding of the interactions between the heads of department's

role and their evolving work environments. Empirical findings are also reviewed in this section to obtain a better understanding of the likely factors that can cause tensions in the role of heads of department in Singapore cluster schools given the significant changes in the Singapore educational environment in recent years. The insights gained from an understanding of the concepts of role in education will aid in drawing up the conceptual framework for the study of the role of heads of department.

2.7.1 Role Theory

a) The History of Role Theory

The term 'role was originally a French word derived from the Latin 'rotula' or little wheel. In ancient times it designated a round roll on which parchment sheets were fastened but then evolved later to mean official volume of papers such as the rolls of parliament in England or the minutes in Greece and rolls for writing theatrical parts in ancient Rome. It became 'roles' or paper fascicles from which the parts of characters in the theatre were read in the sixteenth and seventeenth centuries (Moreno, 1960).

In the 1930s the term 'role' was used in sociological writings on role problems (Biddle and Thomas, 1966). Writers such as Linton (1936, pp.113-114) made the distinction between status (position) and role:

> 'A status, as distinct from the individual who may occupy it, is
> simply a collection of rights and duties...A role represents the
> dynamic aspects of a status...When he puts the rights and duties
> into effect, he is performing a role. Role and status are quite

inseparable...There are no roles without statuses or statuses without roles'.

In the mid-1940s, extensive use of role-related terms such as 'role-playing', 'role' and 'sex role' were seen in titles of empirical studies With progressive elaboration and refinement, by the 1960s, role theory had become an established field of study. According to Biddle and Thomas (1966, p.8):

'...the language of role has grown from few to many concepts...The role analyst may now describe most complex real-life phenomena using role terms and concepts, with an exactness that probably surpasses that which is provided by any other single conceptual vocabulary in behavioural science'.

Although the sociological concept of role continued to be compared with theatrical roles of actors (e.g. Jackson, 1972; Moreno, 1989; Landy, 1991), role theory's 'perspective and language allow for more than a metaphorical characterization of human behaviour' (Biddle and Thomas, 1966, p.3). Extracts of Biddle and Thomas' definitions of common terms in role theory are shown in Table 2.

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Table 2: Role Terms

Term	Extracts of Selected Meanings in Role Theory
Role	A set of standards, descriptions norms or concepts for the behaviours of a person or a position
Position	A designated location in the structure of a social system
Status	A position
Expectation	A concept held about a behaviour likely to be exhibited by a person
Role Conflict	Inconsistent prescriptions held for a person by himself or by one more others
Role pressure	Pertains to all those factors relating to role which singly or in combination are sources of potential difficulty for the individual
Role strain	'the felt difficulty in fulfilling role obligations' (Goode, 1960, p. 483). If pressure is strong and enduring it of course results in strain.

Since the 1960s, role theory has been further developed as a field of study (e.g. Jackson, 1972; Heiss 1981; Stryker and Stratham, 1985; Blau and Gordon, 1991), although some have doubts about its usefulness as a concept in Sociology (Coulson, 1972). Role theory has been found useful in examining 'complex real-life phenomena' in the social and behavioural sciences and some other domains.

b) Role Theory in Organisations

Getzels and Guba (1954) Model: Getzels and Guba (1954) developed the Model of Social Behaviour to explain the dynamics of social behaviour in a given institutional environment. The model relates role expectations and role perceptions of individuals

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or groups operating within a given institution and cultural social structure (see Figure 1 below). The model is based on a sociopsychological theory of social behaviour that conceives of any organisation as a social system. The model focuses on two dimensions, the institutional and the personal. In Figure 1, the institutional axis is shown at the top of the diagram and consists of institution, role, and role expectations. An institution is defined by its roles, and each of the roles is defined by its expectations. The personal axis, shown at the lower portion of the diagram, consists of the individual, his personality and his need-dispositions. The individual is defined his personality, and his personality by his need-dispositions. According to Getzels and Guba (1957) the institution, role, and expectations, which together constitute the nomothetic or normative dimension of activity in a social system, and the individual, personality and need-dispositions, which together constitute the idiographic, or personal dimension in a social system, interact to define social behaviours. The influence of the two dimensions results in the behaviours of the individual as he tries to meet his personal needs and the expectations of the institution simultaneously. When a person's behaviour meets institutional role expectations he is said to have adjusted to the role. When person is able to meet all his personal needs while simultaneously meeting the institutional role expectations he is said to be integrated. Therefore it would be ideal for both institution and the person if both institutional and personal requirements could be met. However, meeting all institutional expectations and personal needs is seldom, if ever, found in practice. It is inevitable that a certain amount of strain and conflict between individual and institution will result when all needs and expectations are not met.

Figure 1: The Getzels-Guba Model of Social Behaviour

Institutional Dimension

```
                  Institution  ─────▶  Role ─────▶  Expectation
               ↗                                                 ↘
   Social                ↑↓          ↑↓          ↑↓              Observed
   System                                                       Behaviour
               ↘                                                 ↗
                  Individual ──▶ Personality ──▶ Need-Disposition
```

Personal Dimension
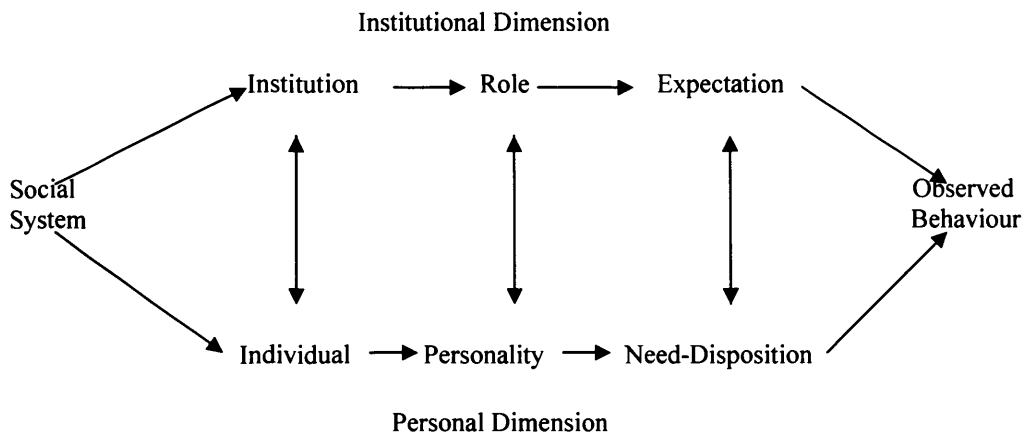
After Getzels and Guba (1954)

The Getzels and Guba's (1954) model can be used to predict possible conflict areas in an organisation. A role-personality conflict can occur when there are discrepancies between the pattern of expectations for a given role and the pattern of needs-disposition of an individual and the individual has to choose whether he will fulfill individual needs or institutional requirements. A second type of conflict is role conflict. Role conflict occurs when a role incumbent is required to conform simultaneously to a number of expectations which are seen as mutually exclusive. A third conflict area is a conflict between personality and the needs-disposition. Such personal disequilibrium means that the individual cannot maintain a stable relationship with a given role or he habitually misperceives the expectations placed

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upon him. A fourth area of conflict is role expectations conflict which occurs when two sets of expectations for the same role are in opposition.

Katz and Kahn's (1966) model: Katz and Kahn (1966) developed the theoretical framework for the role analysis of a 'focal person' in the context of an organisation. This is shown in Figure 2 below. In the framework, role is defined by the role set, or the role senders, who have a stake in the performance of the role. The role set consists of all the people that the focal person has interactions with and who have the ability and the power to shape the individual's role. The role expectations form the sent role communicated by the role set, and the focal person's perceptions of what is sent make up the received role. Role behaviour is the focal person's response to the received role.

The framework presents a process cycle with circles representing organisational, interpersonal and personal factors, and boxes, the role set and the focal person. In the cyclical process, the sent role is influenced by the personal attributes of the focal person, the perception of the focal person about the sent role (the 'received' role) and interpersonal factors between the focal person and the role senders, both of whom are influenced by organisational factors. The expectations of the role set create demands and constraints on the jobholder, while the focal person's role behaviour reflects the extent of compliance with expectations to the role set.

Figure 2: A Theoretical Model of the Role Sending Cycle in an Organisation
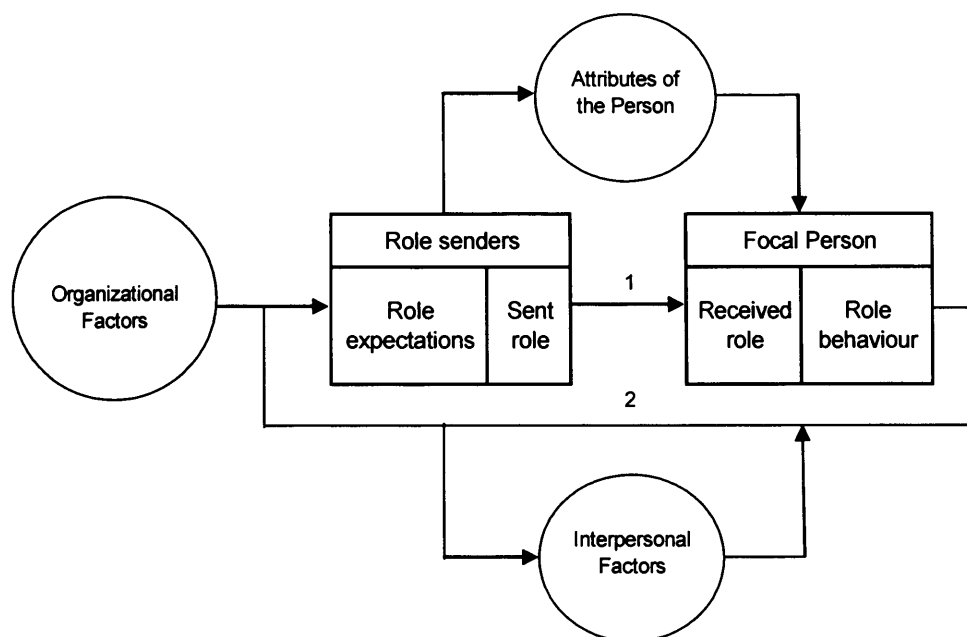
After Katz and Kahn (1966)

Kahn _et al_'s (1966) model: Kahn _et al_ (1966) built a theoretical model based on Katz and Kahn's (1966) framework to examine role conflict and role ambiguity in organisations. Kahn _et al_'s (1966) *A Theoretical Model of Factors Involved in Role Conflict and Ambiguity* (see Figure 3 below) is built around the concept of a role episode, depicting a complete cycle of role sending, the focal person's response and the effect of the response on the role senders. Boxes in the diagram show events that constitute a role episode and causal effect between the events are indicated by arrows; circles represent organisational, personal and interpersonal relations between role senders and the focal person. In Figure 3, expectations of the role set (I) through the process of role sending, (II) and (I), are experienced by the focal person (e.g. a middle manager) (III); this experience generates a response from the focal person (IV), the role senders observe the focal person's response (2), compare it with their

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expectations (I) and exert pressure (II) to bring the focal person's response into congruence with their expectations. The lines 4 to 9 indicate the influence of organisational factors A, personality factors B and interpersonal factors C on role senders as well as the focal person.

However, where there is a 'simultaneous occurrence of two or more role expectations such that compliance with one would make compliance with the other more difficult' (Katz and Kahn, 1966, p. 204) sent role conflict results. In some situations, a single role sender may be inconsistent in the demands made upon the role-holder, leading to intra-sender role conflict; in others, role requirements may violate moral values, causing person-role conflict (Kahn et al, 1964).

Figure 3: A Theoretical Model of Factors Involved in Role Conflict and

Ambiguity
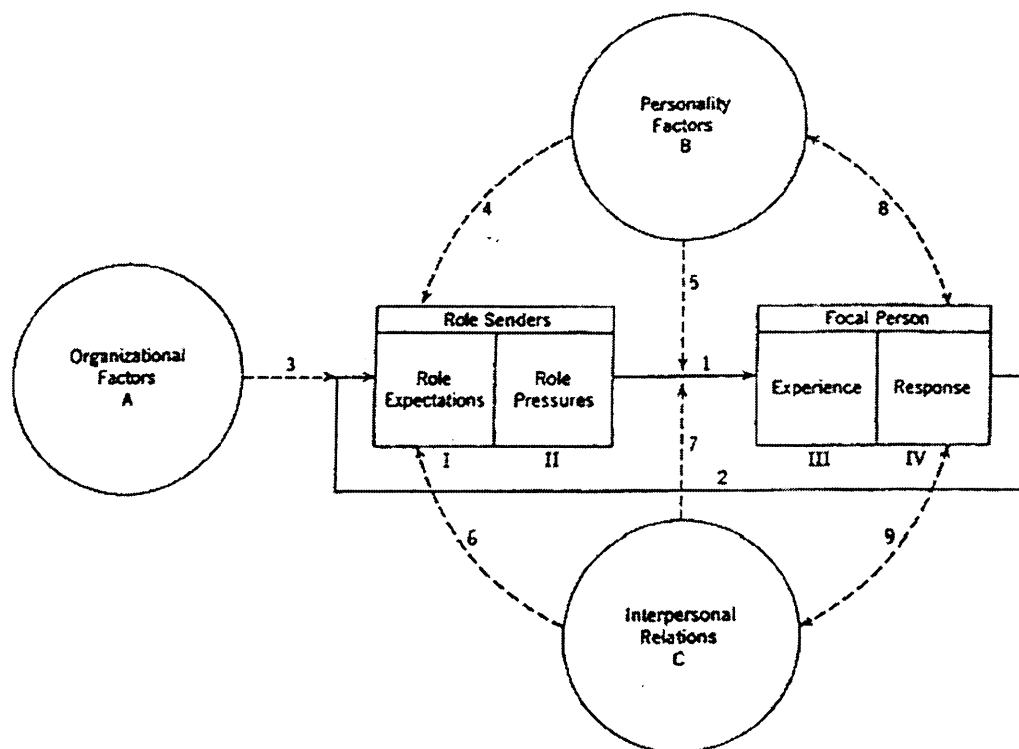
After Kahn et al (1966)

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c) Role Theory in Management

Fondas and Stewart's (1994) Model: Fondas and Stewart (1994) developed a theoretical framework of role similar to that of Kahn et al's (1966) (see Figure 3 above) 'for explicating how a manager affects and effects the expectations others hold of his or her behaviour in the job...' (pp. 84-85). Fondas and Stewart (1994, p.88) explicated that rather than the manager being confronted with expectations of role senders eliciting the manager's response as shown in Katz and Khan's (1966) model (see Figure 2 above), in reality, managers can, and do, influence their role sets, through 'expectation enactment' which they defined as:

> '...impact that occurs as the result of the manager intentionally initiating opportunities to shape role expectations and as a result of automatic feedback and mutual adjustment between the focal manager and role senders. The word 'enactment' captures the notion of a manager actively, deliberately creating the environment rather than solely responding to it'.

Describing Katz and Kahn's (1966) model (Figure 2) as 'overly deterministic' for studies of managers, Fondas and Stewart (1994, p. 97) claimed their model (see Figure 4 below) to be 'more comprehensive in its coverage and definition of the separate variables affecting expectation enactment than what is found previously in the separate literatures.' Fondas and Stewart's (1994, p. 92) model of expectation enactment (Figure 4) shows four variables which influence expectation enactment, with the direction of their influence indicated by positive or negative signs. These variables are i) characteristics of the role set; ii) characteristics of the focal manager;

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iii) characteristics of the role set/focal manager relationship; and iv) organisational influences external to the role set/focal manager relationship (see boxes in Figure 4).

Figure 4: Model of Expectation Enactment in Managerial Jobs
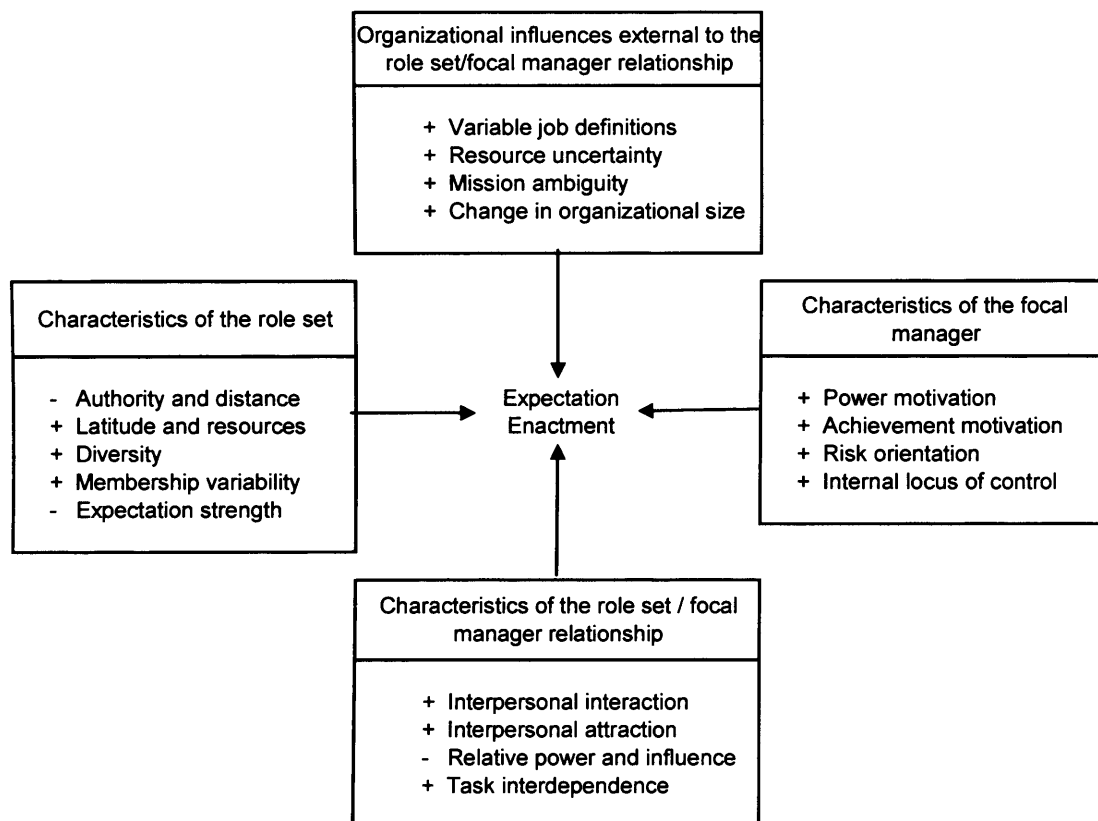
After Fondas and Stewart (1994)

Smith's (1996b) Model: Smith's (1996b): *Theoretical Model for the Role Set Interactions of a Head of Department in a "New" University"* (see Figure 5 below) built on and expanded the role making process in Kahn *et al*'s (1966) model (Figure 3). It shows the same cycle of role sending (I to IV) as in Kahn *et al*'s model with role pressures originating in expectations of role set members (I). However it has incorporated: i) the reverse cycle of role pressures originating in the expectations of the focal person e.g. the head (i.e. head of department) on the role senders (V), as argued by Fondas and Stewart (1994); ii) external factors' influence (D) on the heads of department's role and iii) the organisational factors' influence on the head. In Figure 5, the reverse cycle of role pressures originating in the head's expectations on the role senders (V) exert pressure (VI) on the role set members (10) who experience the role pressures (VII) generating a response (VIII). The head observes the response (II) compares it with his or her own expectations (V), puts on more pressure (VI) so as to make the response congruent to his or her own expectations. External influences (D) on the head, the role set members, and the organisation are indicated by lines 12, 13, 14, respectively while the organisational factors' influence on the head is shown by line 15.

Figure 5: Theoretical Model for the Role Set Interactions of a Head of Department in a "New" University

After Smith (1996b)

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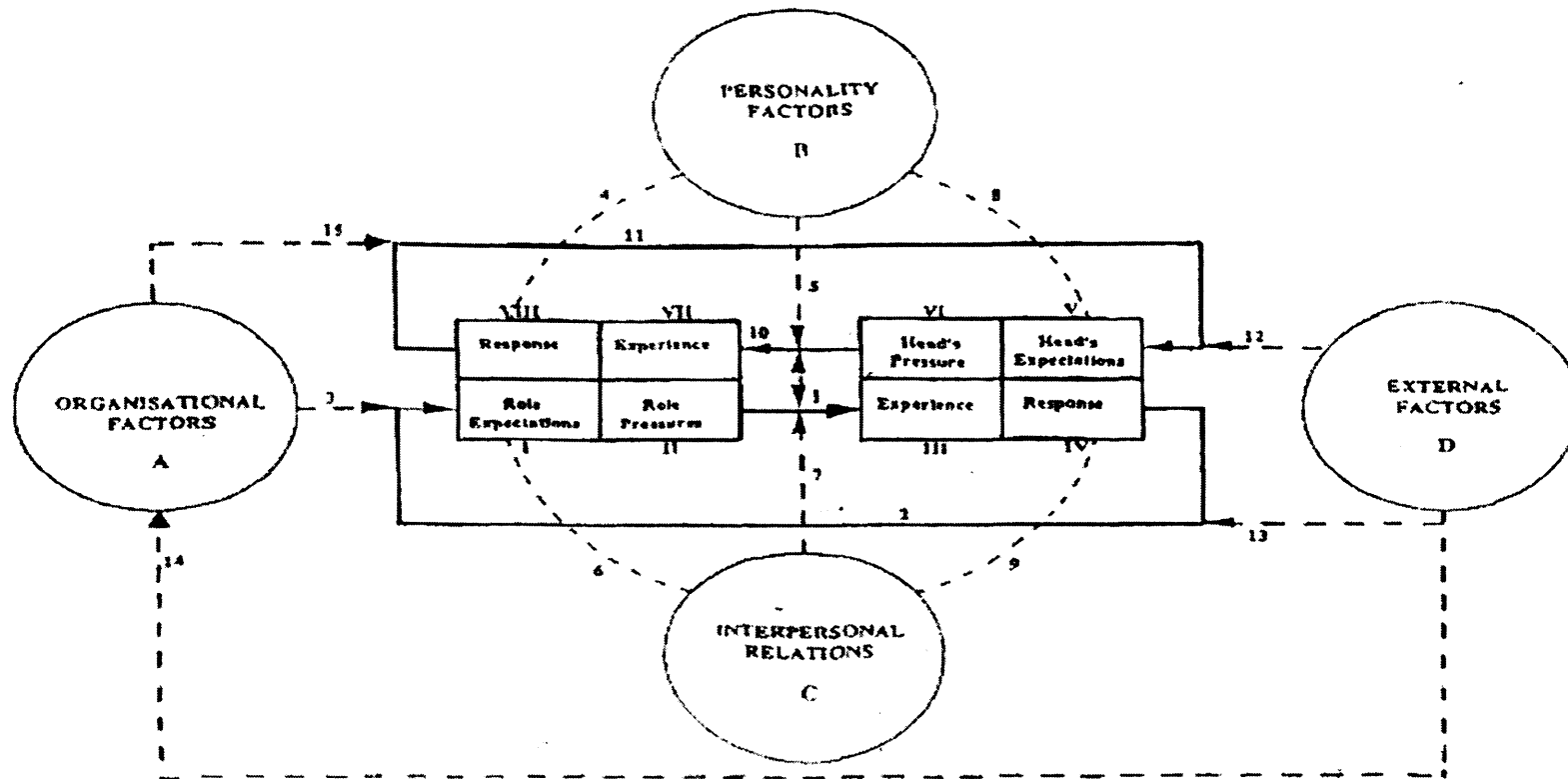
As illustrated in the various models above, the different perceptions, understandings and expectations of various people impinging on the role, account for the complexities in the role and often lead to role pressure, where one or more members of the role set attempts to assure conformity with their expectations. The multiple demands or expectations on the individual can be incompatible or contradictory and stress-producing for the role incumbent resulting in role strain. Role ambiguity and role conflict can arise when there are changes in expectations within role sets for example when the individual is unsure about the precise nature of the role at any point of time or about whether he or she is performing well in the job. Role ambiguity describes a situation in which the role-holder does not know what to do as a result of lack of information for example from an unclear or non-existing job description, or lack of understanding of how to comply. It can also occur where an imbalance exists between what the role-holder has authority to do and those activities for which he has responsibility (Hammons, 1984).

Contingency Theory: Contingency theories are a class of behavioural theory that claims that there is no one best way of organising/leading and that an organisational/leadership style that is effective in some situations may not be successful in other situations (Fiedler, 1967). In other words: the optimal organisation/leadership style is contingent upon various internal and external constraints.

These constraints may include: the size of the organisation; the way it adapts to its environment; differences among resources and operations activities, managerial

assumptions about employees, and strategies, technologies used (12manage, 2006).

Four important aspects of Contingency Theory are:

o   There is no universal or one best way to manage;

o   An organisation's design and its subsystems must 'fit' with the environment;

o   Effective organisations not only have a proper 'fit' with the environment but also between its subsystems;

o   The needs of an organisation are better satisfied when it is properly designed and the management style is appropriate to the tasks undertaken as well as the nature of the work group (Fiedler, 1967; Wikipedia, 2006; 12manage, 2006).

Contingency Theory of Leadership: In the Contingency Theory of Leadership, the success of the leader is a function of various contingencies in the form of subordinate, task, and/or group variables. The effectiveness of a given pattern of leader behaviour is contingent upon the demands imposed by the situation. Contingency theories stress using different styles of leadership appropriate to the needs created by different organizational situations. No single contingency theory has been postulated. One of the theories is Fiedler's Contingency Theory.

Fiedler's (1967) Contingency Theory: Fiedler's (1967) theory, the earliest and most extensively researched of the theories, postulates that the leader's effectiveness is based on situational contingency or a match between the leader's style and situation favourableness or situational control. In Fiedler's model, group performance is a result of interaction of two factors namely: leadership style and situational favorableness. Leadership effectiveness is the result of interaction between the style

of the leader and the characteristics of the environment in which the leader works (Fiedler, 1967; Value Based Management.net, 2006).

Least preferred co-worker (LPC) Scale: A key component in Fiedler's Contingency Theory is the 'Least preferred co-worker (LPC) Scale', an instrument for measuring an individual's leadership orientation using eighteen to twenty-five pairs of adjectives and an eight-point bipolar scale between each pair, for example: Unfriendly 1 2 3 4 5 6 7 8 Friendly. The LPC scale asks a leader to think of all the persons with whom he or she has ever worked, and then to rate the one person with whom he or she has worked the least well with on each pair of adjectives. A high LPC score suggests that the leader has a human relations orientation, while a low LPC score indicates a task orientation, as people who are relationship motivated, tend to describe their least preferred co-workers in more positive terms therefore, they receive higher LPC scores. People who are task motivated, tend to rate their least preferred co-workers in a more negative manner. Thus, they receive lower LPC scores. This method reveals an individual's emotional reaction to people with whom he or she cannot work.

Situational favorableness: According to Fiedler, there is no ideal leader. Both low-LPC (task-orientated) and high-LPC (relationship-oriented) leaders can be effective if their leadership orientation fits the situation. The contingency theory allows for predicting the characteristics of the appropriate situations for effectiveness. Three situational components determine the favorableness or situation control:

o   Leader-member relations, referring to the degree of mutual trust, respect and confidence between the leader and the subordinates.

o   Task structure, referring to the degree to which the task at hand is low in multiplicity and high in verifiability, specificity, and clarity.

o   Leader-position power, that is, the power inherent in the leader's position itself.

When there is a good leader-member relation, a highly structured task, and high leader position power, the situation is considered a 'favourable situation'. Fiedler found that low-LPC leaders are more effective in extremely favourable or unfavourable situations, whereas high-LPC Leaders perform best in situations with intermediate favourability (Fiedler, 1967; Kannan, 2006; Wikipedia, 2006).

Leader-Situation Match and Mismatch: Fiedler argued that key to leadership effectiveness was selecting the appropriate leader for a given situation or changing the situation to match the leader's style. Since personality is relatively stable, the contingency model suggests that improving effectiveness requires changing the situation to fit the leader. This is called 'job engineering'. The organization or the leader may increase or decrease task structure and position power; also training and group development may improve leader-member relations. Fiedler et al (1976) offered a self paced Leadership training programme designed to help leaders alter the favourableness of the situation, that is change situational factors to better match their style (Fiedler et al, 1976; Sampson, 2006; Wikipedia, 2006).

Fiedler's contingency theory has drawn criticism because it implies that the only alternative for an unalterable mismatch between leader orientation and an unfavourable situation is changing the leader. Critics find that the theory falls short on flexibility and that LPC scores can fail to reflect the personality traits it is supposed

to reflect. However, many decades of research have been undertaken by Fiedler and his associates to support and refine the contingency theory (Wikipedia, 2006).

d) Role Theory in Education

The utilisation of role theory in education has been its application to a number of educational studies such as the ones discussed below.

Burnham (1969): Burnham (1969) applied role theory to a study of administrators in schools. Using the headmaster as the focal person or 'role incumbent', Burnham (p. 212) explains that:

> Associated with every position in an organisation is a set of expectations concerning what is appropriate behaviour for a person occupying that position, and these "appropriate behaviours" comprise the role associated with the office...a person occupies a position but plays or performs a role. A role is the dynamic aspect of a position.

He asserts that 'the administrator will be involved in a whole series of role relationships. His position might be visualised as at the centre of a web of relationships, a pattern referred to as the "role set" ' (p. 216). As such, the leadership role is: 'particularly vulnerable to role conflict...the one viewed most apprehensively by the administrator, is that between role expectations and personality' (p.216).

Hargreaves (1972): Another application of role theory was in Hargreaves' (1972) description of the interpersonal relationships of school teachers in which he applied terms such as 'actor' for the role incumbent; 'position-role' for '...behavioural expectations associated with a position'; 'role performance' for role behaviour; and 'role partners' for role set. Hargreaves identified three main role relationships in the teacher's role set as i) teacher-pupil; ii) teacher-teacher; and iii) teacher-headteacher as shown in Figure 6 below.

Figure 6: Three Teacher Role Relationships
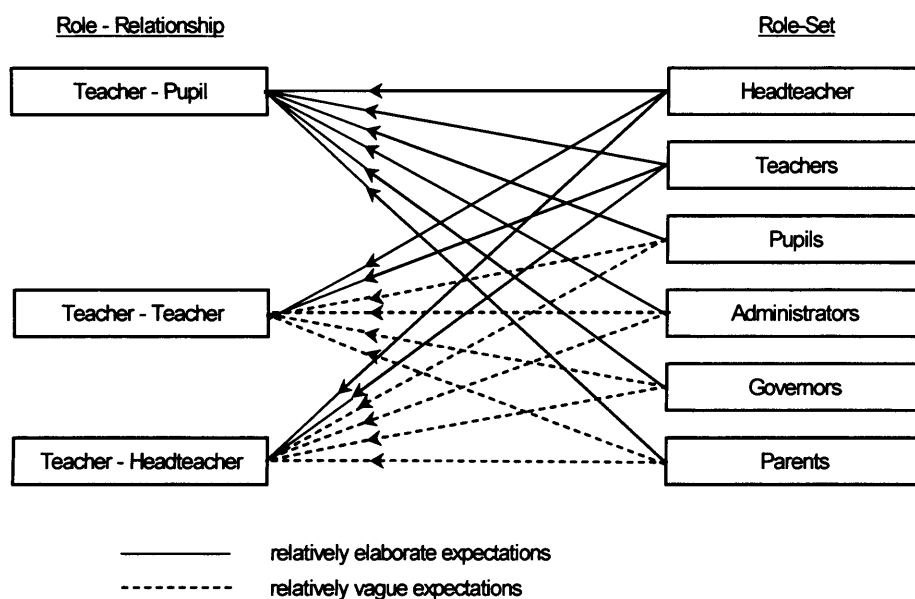
After Hargreaves (1972)

Hargreaves (1972) contends that role strain is a very common occurrence and that there are very few roles which are not liable to conflicts. He identified eight basic forms of 'role strain' or 'role conflict' experienced by the teacher (actor):

1. Simultaneously occupies two positions whose roles are incompatible.

2. Lack of consensus among occupants of a position about the content of the role.

3. Lack of consensus among occupants of one of the complementary role positions.

4. Conception of his own role conflicts with the expectations of a role partner.

5. Various role partners have conflicting expectations.

6. Single role partner has conflicting expectations.

7. Role expectations are unclear.

8. Lacks qualities required for adequate role performance.

Morgan and Turner (1976): Morgan and Turner (1976, p.8) wrote that '...the importance of role theory as a tool of analysis is that it directs our attention...to the properties of situations rather than to the properties of individuals.' They identified three forms of 'role conflict':

1) Conflict between roles or inter-role conflict which occurs when there is discord between two or more role positions that the same individual occupies exerting pressure on his available time.

2) Conflict within a role, which arises from: i) contrary directives from one's manager or ii) conflict between the incumbent's own perceptions of his job and those demanded by the workplace culture.

3) Conflict within the role set which may result from role expectations originating from a variety of sources and each role is set in a web of other connected roles, each one sending out incompatible signals about the focal role.

Morgan and Turner noted that observed role behaviour is linked to role expectations and individual personality. Using Getzels' (1958) *Model of the Organization as a Social System* (Figure 7), they explained that any 'observed behaviour' (B) is a function of both the idiographic dimension (P) and nomothetic dimension (R), the proportion of each varying according to the degree of role prescription.

Figure 7: Model of the Organization as a Social System

Organizational (Nomothetic) Dimension

R

Institution ⟶ Role ⟶ Expectation

Social System

Observed Behaviour B

P

Individual ⟶ Personality ⟶ Need-Disposition

Personal (Idiographic) Dimension
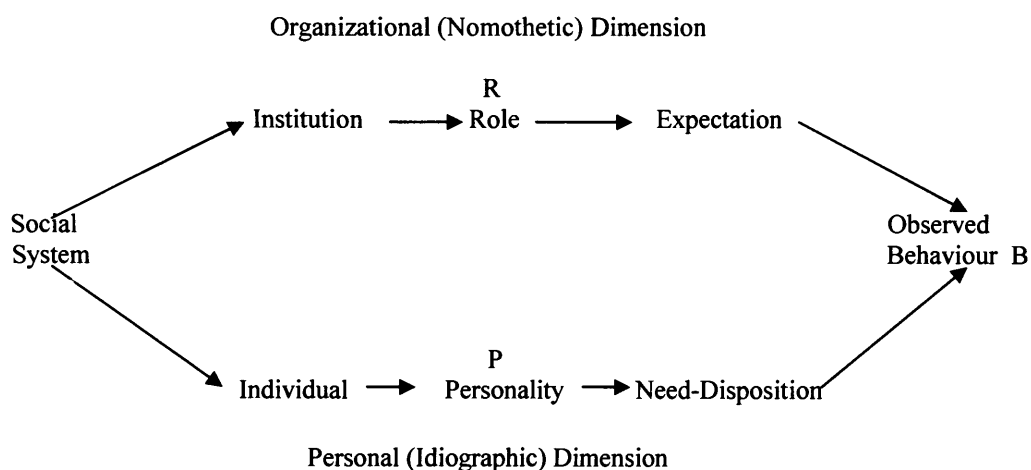
After Getzels (1958) in Morgan and Turner (1976, p.10)

Morgan and Turner illustrated the interplay of role and personality factors on a person's behaviour by comparing the roles of the soldier and the artist (Figure 8). The

soldier's role is highly prescriptive and highly nomothetic in dimension whereas the

role of the artist is low in prescription and mainly idiographic (Figure 8).

Figure 8: Personality and Role Factors in Organizational Behaviour
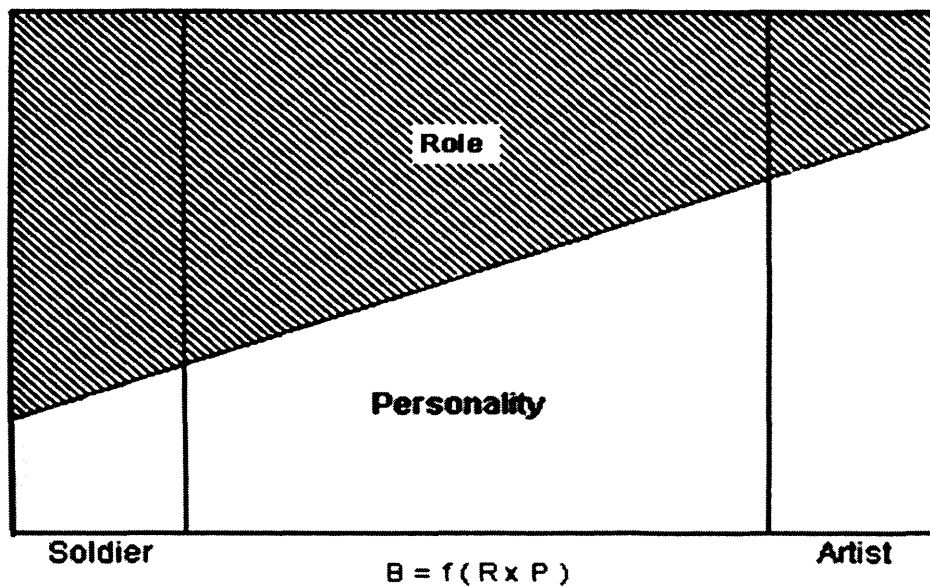
After Morgan and Turner (1976, p.11)

Dunham (1978) focused on the sources of stress in the role of the comprehensive

school head of department using information given by 92 heads of department who

took part in staff development conferences. These sources of stress included:

o Middle manager having quite considerable administration to perform and

teaching a full teaching load

o   Problems associated with working with other heads

o   Interaction with colleagues, pupils and parents

o   Having to meet contrary role expectations

o   Pressure of performing tasks that appear to belong to different roles such as subject teacher, head of a team, tutor of probationary teachers and

o   Lack of communication.

Other applications of role theory in education include: Ribbins (1988) on the role of the middle manager in the secondary school; Campbell (1988) on strain and conflict in the role of the curriculum postholder in the primary school; Peeke (1980) on role strain in further education college; Bush (1983) on the vice-principal's role in further and higher education; and Smith (1996) on the role of the head of department in 'new' universities. Ribbins (1988) described role strain as the tensions experienced by an individual as a result of some form of role conflict, role ambiguity or role incompatibility. Peeke (1980, p.80) concluded that,

'the concept of role strain is useful in highlighting sources of stress and dissatisfaction and conceptualizing them in a manner amenable to discussion and resolution. The continuing development of role theory and such concepts as role distance, role embracement and role relationships...provide a useful model for the examination of individual behaviour in further education organisations'.

In the school context, conflict appears to be inherent in the role of heads of department as the role involves managing from the middle in the organisational

hierarchy. Morris and Dennison (1982) argue that dilemmas form a natural part of the job since the role of heads of department is not a single entity but a complexity of a few distinct roles: professional, organisational, school and personal that they are performing simultaneously. To a considerable extent, there may be overlap between the roles which entail different expectations of the heads of department's work, resulting in conflict between roles or 'inter-role conflict' when the role expectations are incompatible. The individual may also experience role overload (Katz and Kahn, 1978), another aspect of role conflict arising from a conflict of priorities among the different role expectations. Role overload creates a dilemma between quantity and quality, as too much work and time constraint gives rise to role strain.

Role conflict is moderated by personality and organisational or contextual variables (e.g. Kahn *et al* (1966; Smith, 1996b). The organisation factors, for example, the size and structure of the organisation, determine who will be in the position to influence the heads of department's perception of their role and how they carry it out. The personality factors relate to the attributes of the heads of department. According to Getzels *et al* (1968), personality is 'the dynamic organisation within the individual of those need-dispositions and capacities that determine his unique interaction with his environment' (p. 69). This implies that heads of department have their own set of conceptions of the office they occupy and a set of attitude and beliefs about what to do in their role. The interpersonal factors refer to the relationships between the role-set and the heads of department which shape the expectations that the role-set has of the heads of department and impact the way the heads of department interpret the pressure exerted by the role-senders. Although both organisation factors and personality factors are moderators of role conflict, it appears that role conflict

correlates with the organisation factors more than with individual characteristics (Jackson and Schuler, 1985).

In practice, role definition is a constant process of negotiation and how the role should be played depends on the whole spectrum of expectations of the role set including the individual, regarding the appropriate behaviour for the role incumbent. As such, management roles in schools are not defined by the principal alone although the principal has ability to influence role definition through establishment of a position and/or through job specifications. Turner (1969) makes a distinction between 'role-taking' and 'role-making'. When management roles are defined for matching of people to tasks and responsibilities such as job descriptions and the individual accepts the role as it is presented, it is 'role-taking'. However in practice, the individual can also be active in 'role-making' as the individual's personal conception interplays with the perception of the role set to determine how the role will be played. Thus although expectations are prescribed for the role holder, the performance of the role is dependent on how the individual makes the role (Bush, 1981; Hall, 1997).

e) **Evaluation of Role Theory**

Limitations

Some of the problems with role theory are:

Firstly, the question of whether role theory is really a 'theory' as such or just a nomenclature (i.e. words and definitions) as the definitions in Table 2 (p.100) might

suggest. On this the researcher's view is that irregardless of whether it might or might not be a theory, either way, its application can facilitate the development of theory.

Secondly, there is the question of its usefulness in research since role theory has faded out of fashion. Similar to scholarship and research which are subject to 'fashions', for example, 'movements' such as school improvement and/or effectiveness, and the various approaches to leadership which are sometimes almost cyclical, role theory, to some extent, just faded out of fashion and has done so for some 20 years. A reason for this could be that as it stood in those early days, role theory was 'static', that is, it assumed that roles and role relationships were constant and unchanging and that it involved only people adopting/making role. This was, at least in part, because it was in the early stages of development as a theory and had not really been applied very much to research of real life situations. In this respect, role theory is not a useful theoretical model for dynamic environments in which constant changes are the norm and this would explain why it has faded out of fashion since the 1980s.

Thus, there is the question of role theory's relevance in today's educational landscape and the extent to which the theory takes into account the changing parameters that people in schools work in, as role is very dynamic. Everything changes all the time - the role of the role holder, the role of all other members of the role set, the internal and external environments, and the role holder's understanding of the role. Nevertheless, role theory has its usefulness.

Usefulness

An important dimension of research in educational management relates to the roles of people occupying certain management and other positions. An organisation primarily consists of its people and it is the actions of, and interactions between, its people that give life to an organisation, and the roles of the people within an organisation encompass these actions and interactions. Investigating the roles of principals, deputies, middle managers and teachers involves consideration of the nature of role as a theoretical concept. Hence, role theory is not devoid of usefulness; it is suitable as a theoretical framework for the study of an individual (the role holder) or a group (the role set) although it would not be useful for examining organisations as a whole or general aspects of an organisation. For example, whereas it would be unlikely to find that role theory would provide a suitable theoretical framework in a study of school effectiveness of a particular school or of a teaching method, or a study of school improvement, on the other hand, it might be suitable in a study of, for example, the role of the school principal (the role holder) or of the senior management team (the role set) in school improvement.

Role concepts therefore provide a useful conceptual framework for studying managerial behaviour and the various conceptual models above provide a method for analysing the factors which influence managerial behaviour. The role perspective provides a theoretical framework for explicating how a manager affects and effects the expectations others hold of his/her behaviour in the job (Fondas & Stewart 1994). Role theory is useful in the explanation of tensions of managing in the middle and thus provides a suitable framework for analysing pressures that heads of department

face. Role concepts and terminology are useful in underpinning understanding of the interactions between the middle manager and the work environment.

In this respect, role theory has its usefulness in the study of role of heads of department in cluster secondary schools in Singapore as the study is explicitly studying the 'role' of individuals in an organisation, in this case a cluster. As the research is to examine the role of heads of department within a context which has undergone some fundamental changes, a consideration of role theory will enable key influences upon the role of heads of department to be identified, and their effects to be understood. For example, role theory can help to identify the pressures at work in the secondary school system and role concepts can explain why they are present in the heads of department's role. For example, the mediating or buffering role of heads of department could be a source of sent role conflict, when heads of department try to reconcile the demands of their superior (e.g. principal or cluster superintendent) with the needs/expectations of department members. Or heads of department may experience role ambiguity as a result of changing expectations due to changes in educational demands. From the basic definitions of role, role set etc, potential problems in the work environment can be perceived. The role is based upon the perceptions, understandings and values of a number of people, including the role-holder, and inevitably there will be differences to be reconciled. Members of the role set each have a stake in the role: their own role or their well-being in some way depends upon their perception of the role being carried out. These complexities can result in a number of conflict situations like role pressure, role strain or role conflict.

However although role theory provides a suitable theoretical framework for studying the role of individuals in the school context its use also implies that there are issues of

generalisability, in other words, to what extent can the findings be generalised to other situations. It is envisaged that with regard to generalising, the study would be able to transfer the findings to other clusters since, their situations are similar if not identical to the one being studied but caution would be required in generalising the findings to other different situations.

2.7.2 Role Tensions

The literature shows that the role of the middle manager in education is fraught with tensions of leading from the middle. The role is 'a complex and demanding one, subject to pressures, conflicts and uncertainties' (Mathias, 1991, p. 65), and 'stresses caused by having to cope with the diverse demands and contexts of a subject leader's role without sufficient power to impose preferred solutions' (Busher, 2001, p. 8).

a) Role Strain

The changing role of heads of department in the UK during the last decade is 'adequately illustrated by the increase in workload' (Adey, 2000, p. 419) as increased pressures emanated from additional responsibilities of having to 'contribute towards the shaping of whole school policies and priorities' (p. 420). Four factors mark the changing role of the middle manager in schools: 'the change from administration to management and leadership; the downward delegation of aspects of whole-school organization; the increasing responsibility for the monitoring and evaluation of their subject areas; and the interpretation of change initiated by senior management to classroom teachers' (Glover *et al,* 1998, p. 290). However, the increased

responsibilities do not seem to be matched with the capability to carry out the role. Wise and Bush (1999) argue that the dual role of teacher and manager 'imposes a heavy burden and may not be sustainable without additional resources' (p. 194). Many heads of department do not conceive of themselves as managers or leaders although the changing demands from policy changes such as the National Curriculum, OFSTED inspections, compulsory appraisal, and delegated responsibilities from senior management has changed the competences in the role of the head of department to that of leader and change agent. The result is that heads of department have to perform work which they either dislike or find unacceptable such as supervision, monitoring, evaluating and reviewing their departments' work (Ribbins, 1988; Earley and Fletcher-Campbell, 1989; Glover et al, 1998). This creates an 'impression of pressure management' (Glover et al, 1998, p. 281) where middle managers view their work as largely unconnected tasks, and expectations of different role sets often produce 'role pressures' and 'role strain' when these expectations are contradictory or dis-similar. Thus the imposed changes from increased external demands and the impact of whole-school roles on heads of department are accompanied by increased pressures and stress from role strain as 'time constraint still hampers the successful implementation of change' (Glover and Miller, 1999, p. 55).

A major contributor to role strain, is the lack of time to manage an excessive workload, a major predicament of middle managers with increasing managerial responsibilities and heavy teaching loads highlighted decades ago (e.g. Cockroft Report, 1982; Dunham, 1984) and identified by NFER as a major obstacle to effective role performance (Earley and Fletcher-Campbell, 1989). However, Brown and Rutherford (1998 p. 86) notes that 'little has changed' in removing the obstacles to

improving the quality of education and 'we do not appear to have moved forward' (Glover and Miller, 1999, p. 64). Wise and Bush (1999) contend that little time is given for the management role and middle managers are unable to perform the role effectively as they have a substantial teaching load or as Turner (1996) describes, an 'often over-crowded teaching timetable' (p. 207) into which management tasks have to be squeezed. Brown *et al* (2000) find that the downward delegation of management tasks to middle managers, assumingly for 'empowerment', following the policy shifts of the decade before, is effected without the provision of more time, resulting in the perception among heads of department that 'time spent on head of department and SMT business produced role ambiguity and led to issues of time constraint' (p. 254).

Turner (2003) explains why the problem has 'remained so intractable' (p. 224): subject leaders remain committed to their perceived core task, i.e. teaching; the day-to-day realities of school life could be squeezing out other responsibilities; concerns about professional autonomy (not treading on someone else's territory); or a desire not to damage professional working relationships. The issue of lack of time has led to concerns such as firstly, the extent subject leaders are able to cope with all the diverse tasks, a reflection of role overload, and secondly, their ability to delegate their responsibilities, a strategy to promote professional development which subject leaders of larger departments have an advantage of over smaller departments (Turner, 2003).

Lack of time has been identified as the factor which most inhibits the subject leader's effectiveness and which might also 'underpin' some of the other problems encountered in their enhanced role such as the impact of whole-school roles, and the pressures of increased external changes and demands (Glover and Miller, 1999).

Adey (2000) argues that 'the issue of "time" is inescapable' (p. 430) if the TTA's expectations of the role such as the leadership function, are to be met by middle managers who have to cope with excessive workloads.

b) Role ambiguity

Middle managers saddled with multiple tasks also experience tensions such as role ambiguity and role conflict. Role ambiguity is a key factor contributing to the tensions of the role as the predicament of not knowing what is expected in a role is a major problem for teachers who assume management positions without adequate preparation (Peeke, 1983; Bennett, 1995; Hall, 1997). Studies have found that hierarchical distinctions in schools are not neatly delineated particularly between middle management and senior management (e.g. Glover *et al*, 1998; Wise and Busher, 2001) and there are conflicting interpretations of the head of department's role, a lack of clarity about expectations of what they are officially supposed to do, and job descriptions which are not useful (e.g. Lambert, 1975; Marland, 1975; Earley and Fletcher-Campbell, 1989). Despite the ILEA's (1984) recommendation 'that all heads of department be given clear job specifications' (p. 103), the apparent difficulty for the role definition to be prescribed underscores the dynamic nature of the subject heads' role, and the potential complexity of the role (Wise & Busher, 2001). It also explains the wide variations in job descriptions which do not reflect what is actually going on and areas of responsibility that are far too vague (Earley and Fletcher-Campbell, 1989). Similarly, studies in UK universities reveal that formal job descriptions are not very useful to heads of department (Smith, 1996b) and that with continuing change, 'part of the problem with producing a generalised description is

that the job is highly variable' (Bolton, 2000, p. 60). Job descriptions appear to narrow down the responsibilities of heads of department to staff administrators who support or facilitate the accomplishment of tasks and therefore perform an advisory role, rather than line administrators contributing directly to the decision making and accomplishment of primary objectives of the organisation (Bloomer, 1980). As Glover and Miller (1999) points out, the secondary school head of department has, 'traditionally... been seen as an administrator and professional equal in a team of other professionals' (p. 55) and the role as, 'managerial and reflects best practice before the changes of the 1988 Act' (p. 62). There is therefore a need for clearer job descriptions and clear lines of authority (Kottkamp and Mansfield, 1985), 'clearer guidelines as to the full scope of the job' (Adey and Jones, 1998, p. 134) and 'clarity concerning leadership at middle management level' (Wise and Busher, 2001, p. 1).

c) Role conflict

Role conflict is a major concern of middle managers in schools arising from tensions of conflicting demands and expectations from significant others, such as senior managers and departmental staff. Two major areas of conflict are firstly, administration versus monitoring and evaluation; and secondly, whole school management versus subject responsibility.

Lambert's (1975) study of the role functions of heads of department finds a high level of agreement between heads of department and heads on instrumental-academic items (e.g. the development and carrying out of school policy and curriculum development) but a low level of agreement among heads of department on the expressive-academic

items (e.g. supervising and monitoring staff) in contrast to a high level of expectations amongst heads that this is an important function of heads of department. This low priority accorded to monitoring and evaluation in UK schools is also evident in post-ERA (1988) times. The NFER research reports of haphazard evaluation (Earley and Fletcher-Campbell, 1989) and middle managers' roles are still largely defined in terms of administrative tasks (Glover *et al*, 1998) with many 'traditional' heads of department still performing numerous low-level administrative and managerial roles which 'continue to erode time' (Glover and Miller, 1999, p. 63) that could be expended on developmental and evaluative work. Glover *et al* (1998) find that middle managers feel they are pushed 'to do what has to be done - i.e. the administration' (p. 288) because of the rising tensions of multiple roles resulting partly from senior managers' downward delegation of routine processes, increased pressures from lack of time and the nature of the structures within the school, while senior staff feel that middle managers are taking refuge in administration rather than committing to their newer roles of evaluation and staff development. The latter view may well be supported as heads of department generally dislike the monitoring function (Earley and Fletcher-Campbell, 1989; Glover *et al*, 1998) 'an aspect of their work which caused...great role strain' (Ribbins, 1988, p. 67). The tension between giving support to subject staff and apparent infringements of professional autonomy (Best *et al*, 1983; Ernest, 1989) results in subject leaders either reluctant or unable to monitor and develop their colleagues' work, a situation apparently more pronounced in smaller departments, where heads have fewer opportunities for delegation and limited non-contact time (Glover and Miller, 1999). Many do not see themselves as leaders or accept their roles of curriculum leaders, change agents and staff developers and perceive monitoring and evaluation as potentially conflicting with notions of

professional autonomy and damaging to professional relationships between departmental colleagues; they appear insecure about dealing with teachers particularly older ones, even when they are under-performing (Earley and Fletcher-Campbell, 1989); and are reluctant to judge the work of colleagues who might be superior to them in the subject area (Glover *et al*, 1998). Although 'many SLs were keen to increase the monitoring aspect of their role, their monitoring was limited to an examination of exercise books, teachers' records and planning followed by departmental discussions' (OFSTED, 1997, p. 23).

Wise and Bush (1999) finds however, that heads of department have become more accepting of their monitoring and evaluating responsibilities, acknowledging the need for management tasks to be a central part of their role. Such acceptance according to Wise (2000) highlights one of the tensions of being a middle manager, that is, intra-personal role conflict, for while senior managers expect monitoring of teaching and learning to be effected, team members might be less welcoming of the exercise. Middle managers' lack of confidence in the appraisal process as reflected in the low priority given to identifying and managing staff professional development needs is aggravated by a lack of support for them in this task (Adey, 2000). Glover *et al* (1998) assert that the role is 'fraught with difficulty...because of the lack of formal systems to support middle managers in action they may wish to take' (p. 287).

Another area of conflict concerns whole school involvement. Although official policy in the UK as reflected in the TTA expectations of line management accountability, leadership and followship, and collegial decision-making highlight the duality of the role of the head of department, heads of department are reluctant to be involved in

whole school issues, and what might be regarded as empowerment by the senior managers is sometimes seen by the heads of department as being 'dumped upon' them (Brown and Rutherford 1998, p. 87). Most middle managers prefer to be translators and mediators rather than originators of whole-school policy, vision and culture (Glover *et al,* 1998) or to be inhibited in their role by longer term whole-school strategy and policy-making (Frohman and Johnson, 1993). Although official policy as shown in the TTA standards and OFSTED reports 'appears to...straddle hierarchicalism and collegiality' (Bennett, 1999, p. 290), having to act simultaneously as sectional representatives and participants in collaborative decision-making can be conflicting. However, role conflict appears to be inevitable given the middle managers' wide range of responsibilities and the various cultures and structures within which they operate. Much depends on the existing systems in schools and particularly, the headteachers in influencing formal collaboration and involvement of departmental heads in whole-school decision making (Brown *et al,* 1999). However, departmental sub-cultures can be at variance with whole school culture (Busher and Harris, 1999) and departmental teams can stimulate or work against whole school professional collaboration (Witziers *et al,* 1999). In 'curriculum-led' schools there is a significant whole school decision-making role for the subject leader, but even in such supportive culture, senior managers report only one-eighth of their subject leaders exhibiting leadership initiative (Glover *et al*, 1999). However, in schools where departmental heads are involved at whole school level as members of the school management team, there is 'a greater understanding and appreciation of the link between whole school issues and departmental issues' (Brown *et al,* 2000, p.254) resulting in better integration of priorities at departmental level and whole-school level.

Another conflict is between the middle managers' and senior managers' perception that the subject leader's role is essentially a managerial one on the one hand, and the TTA's expectation of a crucial leadership element on the other, which is 'in urgent need of resolution...' (Adey, 2000, p. 430) to avoid 'frustrated middle managers with role expectations that far exceed the role fulfilment allowed by SMTs' (p. 430). Although policy changes dictate a mindset change it is not easy for heads of department to change the way they have been working. Hannay and Ross' (1999) longitudinal study of school restructuring, find a tension between a traditional set of responsibilities and a new set of requirements, while Glover and Miller (1999) find that the confusion between the demands of whole school management and subject leadership detract from the exercise of leadership functions and although additional time might be given for whole-school functions, 'the demands of subject responsibilities became subsumed within it' (p. 63).

In summary, role theory has provided a better understanding of the theoretical underpinnings of the complex nature of the middle manager's role and this knowledge, together with the empirical evidence on the role tensions faced by middle managers in UK schools, will be helpful in shaping the direction of the study. As has been gleaned from role theory, the potential for role conflict exists in the nature of the work that heads of department do and the empirical literature has been enlightening in providing insight into the complexities of the role of heads of department in UK schools. In Singapore, empirical evidence on this aspect of the heads of department's role is meagre with the few studies conducted before 1997. Their findings show a conflict between the principal's role and the role of the head of department in respect of leadership in the instructional programme (e.g. Manickavasagar,1985; Chan, 1990)

and 'a moderate level of role conflict' (Seah-Tay, 1996, p. 88) with role overload ranking highest, followed by person-role and inter-role conflict and heads of department spending more of their effort in administrative work than in tasks like supervision of staff. The role is seen as primarily accomplishing the objectives of the instructional programme rather than evaluating and appraising their department teachers (Chan, 1990) and role ambiguity is evident particularly with regard to general school administration such as time-tabling and internal examinations (Ministry of Education, 1985; Tan, 1989; Chan, 1990).

As the empirical evidence has revealed that the complexities and tensions in the middle manager's role greatly influence what heads of department do or do not do in schools, it is clear that role tensions is an aspect of role that merits investigation in the study as tensions such as role conflict and role ambiguity will most likely affect the heads of department's attitude towards the role and lead to reduced job satisfaction. It can be envisaged that heads of department in the Singapore context will also experience challenges in their role given the significant changes in the educational environment in recent years, and role concepts and terminology will be useful in underpinning an understanding of the interactions between the heads of department's role and their evolving work environments. The insights gained from an understanding of the concepts of role in education as well as the experiences of heads of department from empirical research will aid in drawing up the conceptual framework and help to set the direction for the investigation of heads of department's role in the Singapore context.

2.8 Conclusion

Both conceptual and empirical literature suggest that there are different approaches to analysing the middle manager's role based on the concerns, viewpoints and perceptions of the researcher and the observed role-holder. The literature review has provided insight into how the complex nature of the role of the middle manager i.e. head of department may be conceptualised and analysed; it has enabled the researcher to see the theoretical role in its setting: how varying structures and leadership cultures encourage or suppress different aspects of the middle manager's role. The literature on the context of secondary education and theories on the role of heads of department provides a framework of theory within which the environments can be analysed and discussed. A thread of discussion would be based on the tensions between the demands of the external environment and the internal environment's practices and processes. Based on the research literature that within the complex organisations of secondary schools, middle managers perform a variety of roles according to context and need, it is likely that the heads of department in the present study would experience a variety of challenges in carrying out their role. The analysis of the complex interaction of the environment with the role will explore the various tensions referred to in this chapter adopting role concepts presented in the section under 'role theory'; the possibilities for the heads of department to keep them in balance and reconcile them; and the resultant impact when they are not resolved. The role of the head of department will also be analysed in relation to their competence in meeting the demands of the role that is, in terms of the provisions for their training and professional needs. The study will also consider contingency theory particularly Fiedler's Contingency Theory of Leadership, as its concepts of 'contingency

leadership' variables and 'situational leadership' variables, which imply that organisations have to deal with different situations in different ways, are relevant to the Singapore context where the educational system is undergoing numerous changes. Based on Fiedler's theory, heads of department as well as school leaders would have to adopt approaches and strategies in tune with the ever-changing demands of a flexible, dynamic external environment. The study will also consider relevant concepts in whole school reform, particularly those introduced in Newmann and Wehlage's (1995) research such as: student learning, authentic pedagogy, school organisational capacity and external support - necessary factors in successful whole school improvement. Factors such as collaborative school culture, collegiality and shared values and norms would be particularly relevant in investigating the nature of the work environment that heads of department in cluster schools in Singapore operate in. Based on the considerations above, the research study will focus on three key themes or variables related to the role of heads of department. These themes or variables are: 'work culture' in the school as well as the cluster contexts; 'role tensions'; and the 'training and professional development' provided for heads of department to be competent in carrying out their role. The inter-relationship of the three themes or variables above is illustrated in the conceptual framework in Figure 9 (p. 138) and the operationalisation of the variables is explained in Figure 10 (p. 142).

2.8.1 Conceptual Framework

As mentioned above, the key themes or variables for investigation in the study namely: 'work culture' 'role tensions' and 'training and professional development' are incorporated in the conceptual framework of the role of the heads of department in Figure 9 (p. 138) and operationalisation of the three key variables explained in Figure 10 (p.142).

The conceptual framework (Figure 9) shows the three key variables 'work culture' 'role tensions' and 'training and professional development' in their contextual settings, that is, the school cluster and the school. The conceptual framework is based on the assumption that the cluster environment (outer circle A) exerts an influence on the school environment (inner circle B). The diagram (Figure 9) also shows the dynamic interplay among the 'work culture', 'role tensions' and 'training and professional development' and their impact on the role of heads of department. The inter-relatedness of the three variables: 'work culture', 'role tensions' and 'training and professional development' is illustrated by the two-way arrows linking the three variables indicating that the variables also influence each other in addition to impacting the role of the heads of department.

Figure 9: Conceptual Framework - Role of Heads of Department
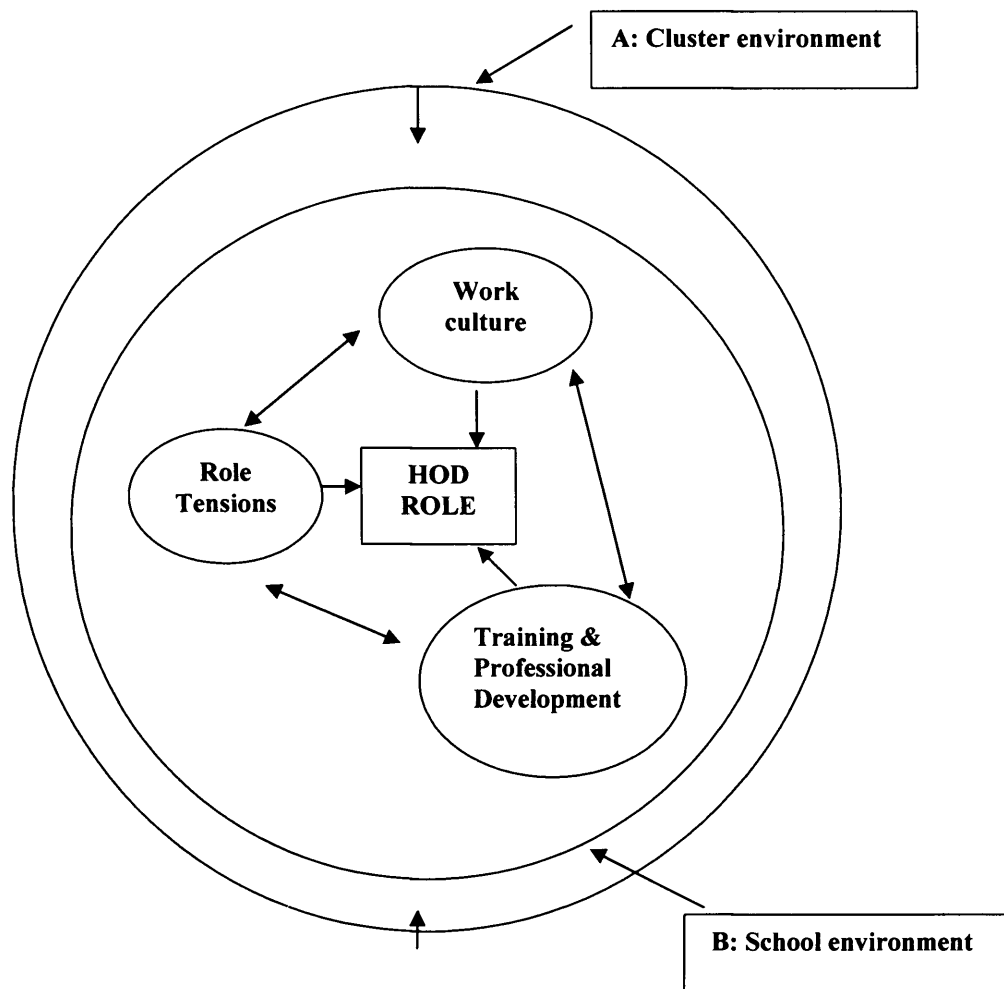
The assumptions underlying the conceptual framework of the role of heads of department (Figure 9) are influenced by the theoretical literature on the significant part that organisational contexts play in impacting the work of middle managers (e.g.

Grace, 1995; Glatter, 1997; Busher, 2001, 2002) and the unique set up of the *School Cluster* system in the Singapore context. The theoretical literature has indicated that a major challenge facing school leaders, including departmental leaders managing from the middle, is coping with not only changes in the internal environment but also the external environment (see pp. 37-39).

In the unique set up of the *School Cluster* system in Singapore, each school in the cluster is managed internally by a Principal, and at the same time is subject to the external management of the cluster Superintendent who leads the school cluster they belong to. The concept of the *School Cluster* system is grouping schools together as administratively autonomous units with autonomy in areas such as financial decision-making and personnel management like intra-cluster deployment of teachers. As explained in Chapter 1, the devolution of decision-making to the cluster level the *School Cluster* system allows deployment of resources and expertise according to member schools' needs (see p. 19). This 'arrangement' inevitably exposes heads of department to a wider work environment with its attendant demands and challenges. The new situation is akin to the schools having a somewhat extended hierarchical structure with the line authority extending upwards beyond the principal to the superintendent. As a result, heads of departments who occupy the third rung of the school organisational structure and who previously answered only to the vice-principal (their reporting officer) and the principal (their countersigning officer), are now confronted with another higher level of authority and that is, the superintendent. The idea of devolvement of authority to schools through the establishment of school clusters as announced by the Education Minister in 1997 (see p. 17) is, in practice, devolvement of authority to the superintendent who becomes the 'conduit' for

channelling educational policies, initiatives and directives of the Ministry of Education to the schools. In this respect, the influence of the superintendent on the schools is great.

One outcome of the *School Cluster* system is that while decision-making at school level still remains the purview of principals, decisions at cluster level rests with the cluster superintendent. The corollary of the school management team at school level, such as the school executive/management committee (SEC/SMC), normally comprising the principal, vice-principal and heads of department, is the Cluster Board at the cluster level. The Cluster Board is chaired by the superintendent with members made up of the principals of the cluster schools for participative decision-making on personnel matters such as intra-cluster transfer, performance appraisal and ranking of heads of department and non-teaching staff, budgeting of cluster funds, and cluster initiatives.

Another outcome of the *School Cluster* system is the emergence of a collaborative culture at cluster level which is in response to the idea of collaboration to encourage greater creativity in the delivery of education mooted in 1997 with the implementation of the *School Cluster* system (see Chapter 1, pp. 16-20), with the degree and types of collaborative activities organised to benefit school leaders, middle managers, teachers, pupils and even to a lesser extent, non-teaching staff dependent to a great extent on the management style of the superintendent.

2.8.2 Operationalisation of Variables in Conceptual Framework

As mentioned above, the conceptual framework for the study incorporates the key themes or variables: a) work culture'; b) role tensions'; and c) training and professional development (see Figure 9, p. 138). The operationalisation of these themes or variables for the study is explained with the aid of Figure 10 below.

a)   Work Culture

In Figure 4, box a: 'work culture' seeks to find out how the internal environment and the external environment impact the role of heads of department by investigating four aspects of 'work culture': i) external influence of the cluster/cluster superintendent; ii) internal influence of the principal; iii) work relationships; and iv) role functions.

The influence of i) the cluster/cluster superintendent and ii) the principal, will focus on how the management of the school cluster and the schools respectively, impact the role of heads of department by way of structures, frameworks, initiatives and interactions introduced in the work environment. The implications of school clusters managed by cluster superintendents as administrative units in the *School Cluster* system has been explained above (see pp. 139-140).

Figure 10: Conceptual Framework: Operationalisation of Variables

b: Role Tensions

- role strain
  - lack of time
  - role overload

- role ambiguity
  - unclear role definition

- role conflict
  - conflicting expectations

⇓

pressure & stress
⇓

- satisfaction with role
- commitment to staying in role

a: Work Culture

- external influence
  - cluster/cluster superintendent

- internal influence
  - principal

- Work relationships

- Role functions

⇓
- shared culture

HOD ROLE

c: Training & Professional Development

- formal training
- informal training

⇓

- competence level

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For iii) 'work relationships', the study seeks to find out the extent of 'collegiality' in the workplace at departmental, whole-school, and cluster levels. The term 'collegiality' is loosely used to describe a situation where colleagues voluntarily 'work together' or 'interact' with each other so as to learn from each other and help each other develop professionally through support and sharing of ideas, best practices and expertise. As indicated in the literature, 'collegiality' can take various forms such as teamwork, shared decision-making and collegial collaboration, and the ability on the part of heads of department to create a cooperative team and garner collegial support, is one of the requisite skills that middle managers need to have for building a team within their departments (see pp. 89-91). The study will examine heads of department's involvement in decision-making at whole-school level, and the manifestation of collaborative collegiality at cluster level, as the 'mandate' given to school clusters to be more creative and responsive by adopting more local initiative and collaborative decision making is reported to have resulted in a high level of collaboration among schools by the Minister for Education in 1997 (see Chapter 1, pp. 19-20).

For iv) 'role functions', the study will focus on the generic role of heads of department with regard to their duties and responsibilities and different levels of role. From the investigation of the role functions of heads of department the study will be able to assess the extent of the complexity of the role of heads of department which empirical studies on UK schools have described as multi-faceted and fraught with difficulties (see p. 125).

b) Role Tensions

In Figure 10 box b: 'role tensions', the investigation is guided by the findings of UK studies (see pp. 125-133) as well as role theory (see pp. 98-125) that tensions such as role strain, role ambiguity and role conflict are experienced by heads of department and will examine elements or sources of these role tensions such as lack of time, excessive workload and role overload; lack of clarity of role definition, and conflicting expectations. The investigation will also examine the extent pressure and stress resulting from role tensions, affect the heads of department's attitude towards the role. As indicated in Figure 10, attitude towards the role is assessed in terms of 'satisfaction with the role' and 'commitment to staying in the role'. The assumption in the conceptual framework is that 'role tensions' is an important impacter on the role of heads of department as UK studies on the role of heads of department have provided evidence that role tensions are the cause of much pressure and stress for those leading from the middle (see pp. 125-133). In the Singapore education scene, the *School Cluster* system (see pp. 19-20; 139-140) has 'superimposed' an external cluster environment on the internal environment of the schools, which is illustrated in the conceptual framework in Figure 9 (see p. 138). The external influence of the cluster as operationalised in Figure 10 (see p. 142) is expected to impose additional demands on the role of heads of department arising from an enlarged role set with the inclusion of the cluster superintendent and key people from the cluster schools such as principals, vice-principals and heads of departments.

c) Training & Professional Development

In Figure 10, box c: 'training and professional development' (see p.142), the assumption underlying the importance of the variable 'training and professional development' is that possessing leadership skills that meet new educational demands in the light of challenges arising from initiatives under the *Thinking Schools Learning Nation* (TSLN) umbrella require that heads of department be given the necessary training to manage change successfully. Aspects of 'training and professional development' that are identified for investigation are: pre-training for the role; and training for incumbents. This will be studied in relation to official courses for heads of department provided by the Ministry of Education and training provided by the cluster. The extent of formalised training and professional development provided for heads of department of study will reflect their competence in carrying out their leadership role.

The variable 'training and professional development' is included in the conceptual framework as relevant research findings (e.g. Glover *et al*, 1998; Adey and Jones, 1998; Adey, 2000) show that middle managers such as heads of department lack the confidence and competence to carry out their role, (see pp.93-94) and this is due in no small measure, to the lack of professional development and training provision for heads of department. As pointed out by Busher and Harris (1999), heads of department's '...involvement are a function of the confidence, expertise and skill in management...' (p. 314) (see p. 96).

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In Figure 10 (p.142), the two-way arrows show that there is interplay of the key variables: 'work culture', 'role tensions' and 'training and professional development' on the role of heads of department in the unique context of schools in a school cluster environment. It is premised on the assumption that organisational factors such as the organisational leaders, in this case, the superintendent and the principal, have considerable influence on the work culture. As has been highlighted above (see p. 96), in practice the role of heads of department in effecting change is likely to vary, depending on the nature and structure of the organisation, the senior management's approach as well as the departmental heads' leadership capability as expressed in their confidence, expertise and skill in management (Busher & Harris, 1999). The interactions among the key variables identified for investigation such as 'work culture', 'role tensions, and 'training and professional development' will enable an understanding of what heads of department do in their schools and how they play their role in the context of a dynamic work environment such as the school cluster.

Based on the considerations above, the research questions will focus on three key themes or variables related to the role of heads of department. These themes or variables are: 'work culture' in the school as well as the cluster contexts; 'role tensions'; and the 'training and professional development' provided for heads of department to be competent in carrying out their role. Based on these themes, the research will seek firstly, to establish the nature of the work culture in cluster secondary schools by investigating the work that heads of department do and the influence of the external environment as well as the internal environment on the role of heads of department; secondly, to establish the nature of the heads of department's roles in cluster secondary schools by investigating the key factors that influence what

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heads of department do; thirdly, to examine whether heads of department in cluster secondary schools are able to cope with all their tasks with focus on the extent that they experience role strain, role ambiguity and role conflict, the extent of their satisfaction with the role and their commitment to staying in the role; and fourthly, to examine whether the training and professional development needs of heads of department in cluster secondary schools are met in relation to their competence in carrying out the role, the forms of training available to them, and the extent that training enhances their competence in carrying out their role.

2.8.3 Research Questions

The 4 main research questions and sub-questions are as follows:

1.   What is the nature of the work culture in cluster secondary schools?

   a) What is the influence of the cluster/cluster superintendent on the work culture?

   b) What is the influence of the principal on the work culture?

   c) To what extent is there a collegial work environment?

   d) What are the roles that heads of department in cluster secondary schools perform?

2.   What is the nature of the heads of department's roles in cluster secondary schools?

   a) What are the key factors that influence what heads of department do?

3. Are heads of department in cluster secondary schools able to cope with all their tasks?

    a) To what extent do heads of department experience role strain?

    b) To what extent do heads of department experience role ambiguity?

    c) To what extent do heads of department experience role conflict?

    d) To what extent are heads of department satisfied with their role?

    e) To what extent are heads of department committed to staying in their role?

4. Are the training and professional development needs of heads of department in cluster secondary schools met?

    a) To what extent are heads of department competent in carrying out their role?

    b) To what extent is there formal training for heads of department?

    c) What part does informal training play in the professional development of heads of department?

It is the intention of the study to evolve a typology of the role of heads of department activities from the various aspects of the role of heads of department that emerge from the study. Based on the literature on secondary education, this typology of the role of the head of department is likely to include the influences of the work environments as both the internal environment and the external cluster environments are likely to have significant impact on what heads of department do; it will emphasise the importance of the competence of heads of department to lead their departments to deliver the desired outcomes of education which means how well equipped they are in terms of professional training and development; and is also likely to include a consideration of

their contribution to school-wide activities as well as cluster activities in addition to their departmental and teaching responsibilities. It is hoped that from the investigation into these issues, the research will be able to contribute a new typology of the role of heads of department to the existing literature.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This study stemmed from current interest in school management research on secondary

schools in Singapore, in response to the following research questions:

1. What is the nature of the work culture in cluster secondary schools?

2. What is the nature of the heads of department's roles in cluster secondary schools?

3. Are heads of department in cluster secondary schools able to cope with all their

   tasks?

4. Are the training and professional development needs of heads of department in

   cluster secondary schools met?

In designing this study, note has been taken of Ribbins' (1995), cited in Brown *et al*,

2000 p. 242) suggestion that 'such research can be contextualized in terms of three

methodological perspectives. These are: 'a situated perspective which gives access to the

views of individual heads of department across a representative range of issues and

events; a contextualised perspective which locates the views and actions of heads of

department within the context of the views of significant others; a contextualised

perspective in action which takes as its starting point the actions of the heads of

department and which also subsumes the two earlier perspectives' (Brown *et al*, 2000, p.

243). This study used the perspective that gives access to the views of individual heads

of department across different subject responsibilities. Their views would be obtained

through quantitative and qualitative means using a questionnaire survey and interviews

respectively. While the quantitative approach used would provide a fair idea of the views of heads of department, it would be complemented by the qualitative approach, which allows for deeper insights into the more interpretive and highly contextualised situation of a school. This chapter will present the research aim, research questions, research design, research methods, data collection, procedures for the pilot study and the main study, and the data analysis.

3.2 Research Aim

Based on the research problem explained in Chapter 1 (p. 31) and section 3.3 below, the study intends to investigate how heads of department in secondary schools in a school cluster in Singapore view and interpret their role. Of particular interest is how the role of heads of department is impacted by a major organisational reform in Singapore's education system, and that is, the implementation of the *School Cluster* system and the new demands that accompany a changed organisation context and work culture with the formation of school clusters. The heads of department's management of their role is studied with reference to continuing and concrete organisational activities within a school cluster environment. Issues such as the work culture in the school context and the cluster context, the role tensions associated with the role, and the departmental heads' competence in carrying out their role, are dimensions that will receive attention in the study.

As has been mentioned in Chapter 1 (pp. 27-28; p.33), few studies on the role of heads of department in Singapore schools have been carried out since the inception of the post of

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'heads of department' in 1985. Therefore little is known about how heads of department view and interpret their roles although the literature on middle managers in schools particularly in UK suggests that departmental heads play complex and multi-faceted roles which account for the tensions arising from conflicting demands and expectations from various role sets. Before 1997, a milestone year for some of the major reforms in school management in Singapore, the focus of the few research studies on the role of heads of department in Singapore schools has been on problems departmental heads faced, such as role conflict and role ambiguity (see pp. 27 & 33). One of the major reforms is the clustering of schools in 1997. The *School Cluster* system has transformed the operation of schools from an entity functioning on its own steam to a more collaborative approach with as few as five (in the pilot project phase) to as many as eighteen schools being clustered under a superintendent's supervision. While the *School Cluster* concept translates into greater autonomy being devolved to schools, it also expects more collaborative effort of the cluster schools (Teo, 1997) (see Chapter 1, pp. 17-20). All these changes imply that heads of department have now to work in a re-structured environment, so to speak. So how do they view their role in this new environment? To what extent have their roles changed or been modified with their respective schools becoming members of school clusters? What are the challenges? This study hopes to get a better perspective of the role played by department heads of school clusters.

3.3 Research Problem and Questions

By design, this study which plans to collect evidence systematically from the middle management level is intended to be exploratory. The research problem can be presented

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as a question: Given the fact that there is a restructuring of the school system in Singapore, how do heads of department view and interpret their role? Four main research questions have been formulated to guide the study to find the answer and to provide a picture of the role of the heads of department (see p. 150; Chapter 2, pp. 147-148). They are crafted from the issues or themes for the study namely: 'work culture' in the school as well cluster contexts; 'role tensions'; and 'training and professional development' for heads of department. These themes or variables are encapsulated in the conceptual framework for the study (see Chapter 2, Figure 9, p. 138).

3.4 Research Design

The research design or framework of the study can be described as 'cross-sectional' in approach in which the data are collected through a questionnaire survey, interviews and analysis of documents. In this research framework the quantitative approach is complemented by the qualitative approach. The terms 'quantitative research' and 'qualitative research' 'emphasize the fact that the two types of research differ in the nature of the data that are collected' (Gall et al, 2003, p. 24). The difference between the two research paradigms can be explained by referring to positivist research and postpositivist research which are terms often used synonymously with quantitative research and qualitative research respectively. Positivist research 'is grounded in the assumption that features of the social environment constitute an independent reality and are relatively constant across time and settings. Positivist researchers develop knowledge by collecting numerical data on observable behaviours of samples and then subjecting these data to numerical analysis' (Gall et al, 2003, p. 23). On the other hand, qualitative

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research or postpositivist research 'is grounded in the assumption that features of the social environment are constructed as interpretations by individuals and that these interpretations tend to be transitory and situational. Postpositivist researchers develop knowledge by collecting primarily verbal data through the intensive study of cases and then subjecting these data to analytic induction' (Gall et al, 2003, pp. 23-24). Denzin & Lincoln (1994, p. 2) defines qualitative research as:

'multimethod in its focus, involving an interpretative, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them.'

Qualitative research tends to be 'based on a recognition of the importance of the subjective, experiential "lifeworld' of human beings' (Burns, 2000, p. 11) and the qualitative researcher's task is to capture what people say and do from how they interpret the complexity of their world, to understand events from the respondents' viewpoints. Both research paradigms have their strengths and limitations.

The main strengths of the quantitative approach are in precision and control. These are achieved through sampling and design, and quantitative and reliable measurement respectively. It can also show causation, since the systematic manipulation of a variable can be shown to have a direct causal effect on another when other variables are eliminated or controlled. In quantitative research, hypotheses are tested through the deductive approach and the use of quantitative data permits statistical analysis. However,

its main strengths - precision and control - are also the sources of its weaknesses. The scientific quantitative approach often produces banal and trivial findings of little consequence due to the restriction on and the controlling of variables. Its assumption that facts are true and the same for all people all the time 'denigrates human individuality and ability to think' (Burns (2000, p.10) and fails to take account of the unique ability of people to interpret their experiences, construct their own meanings and act on them.

As for the qualitative approach its limitations are related to adequate validity and reliability. The subjective nature of qualitative data and its origin in single contexts makes it difficult to apply conventional standards of reliability and validity. As Burns, 2000 elaborates, 'basically, the richness, individuality and subjective nature of a participant's perspective and understanding are not amenable to the usual scientific criteria' (p. 12) such as replication and generalisations to a wider context than the one studied. Another major limitation is the time needed for data collection, analysis and interpretation. In addition there is also possible bias, from the viewpoints of both researcher and participants (Burns, 2000). The strengths of qualitative research are that it allows the researcher 'to gain an insider's view of the field' (Burns, 2000, p. 13) because of the need to maintain close association with both participants and the activities within the context. The researcher is able to see social and educational interactions that may be missed in positivist research as Barton and Lazarsfeld (1969) aptly describes: 'like the nets of deep-sea explorers, qualitative studies may pull up unexpected and striking things for us to gaze on' (p. 166).

However, although at the epistemological level the two theoretical positions of quantitative and qualitative approaches may appear not to be complementary, at the technical level, quantitative and qualitative research strategies are often combined in present-day research (Miles & Huberman, 1994). Essentially the technical version of the debate about the two approaches views these two research strategies as compatible thus making multi-strategy research both feasible and desirable as together they provide richer data and often a better insight into the situation being studied (Rossman & Wilson, 1991). The complementarity of both types of data can be seen in three stages of research: design, data collection and data analysis. According to Sieber (1973), quantitative data can help in finding a representative sample, supplying background data and finding information that may be missed, and in generalizing specific observations for each stage respectively. Qualitative data, on the other hand can help in conceptual development and instrumentation at the design stage, making access and data collection easier at the data collection stage, and validating, interpreting, clarifying, and illustrating quantitative findings at the data analysis stage (Miles and Huberman, 1994). As Rossman & Wilson (1991) point out, the linking of quantitative data and qualitative data facilitates corroboration of each other via triangulation and when good quantitative studies 'are combined with the up-close, deep, credible understanding of complex real-world contexts that characterize good qualitative studies we have a very powerful mix' (Miles & Huberman, 1994, p. 42).

The linking of qualitative and quantitative data can lead to overall designs as shown in Figure 11. In Figure 11, design 1 shows that fieldwork involves continuous, integrated data collection, both quantitative as well as qualitative. Design 2 illustrates how a

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multiwave survey is conducted in parallel with continuous fieldwork, with the first wave informing on what to look for in the fieldwork and the findings in the next fieldwork resulting in revisions in the next wave. Design 3 shows alternating use of both kinds of data collection as fieldwork exploration can lead to development of a quantitative instrument such as a questionnaire and questionnaire findings can be deepened and tested systematically with the next round of qualitative findings. Similarly, design 4 alternates the use of both kinds of data collection where an initial survey can point the field-worker to important phenomena; the field-worker can then develop a close-up, strong conceptual understanding of how things work, leading to the design of a quantitative experiment to test resulting hypotheses (Miles & Huberman, 1994).

Figure 11: Illustrative Designs Linking Qualitative & Quantitative Data

1. QUAL (continuous, integrated collection

    --------------▶ of both ----------------------▶

    QUANT   kinds of data)

2. QUANT wave 1 ⟍   ⟋▶ wave 2 ⟍   ⟋▶ wave 3

    QUAL   ---------------▲ continuous feedback -----------------------------------

3. QUAL ----------------▶ QUANT------------------▶ QUAL

    (exploration)   (questionnaire)   (deepen, test findings)

4. QUANT ----------------▶ QUAL -------------------▶ QUANT

    (survey)   (fieldwork)   (experiment)
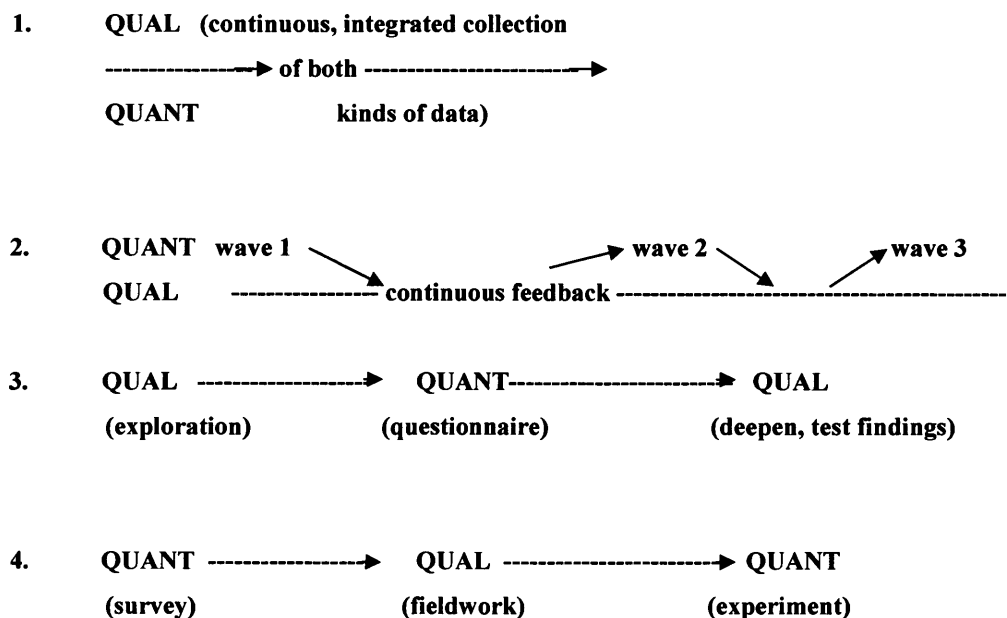
(After Miles & Huberman, 1994, p.41)

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A multi-strategy approach adopting both quantitative and qualitative methods of data collection is used in triangulation in which the findings of an investigation employing a method associated with one research strategy are cross-checked against the findings of a method associated with another research strategy (Bryman, 2001). Burns (2000) explains that 'triangulation means comparing many sources of evidence in order to determine the accuracy of information or phenomena. It is essentially a means of cross-checking data to establish its validity' (p. 68). The rationale for triangulation is relevant to the present study as it intends to adopt a multi-strategy approach to gather both quantitative and qualitative data for the purpose of complementing as well as supplementing findings in each other. As triangulation involves 'the use of two or more methods of data collection in the study of some aspect of human behaviour...' (Cohen and Manion, 1994, p. 233), the sources of data collection to be employed in the research are discussed next.

3.5 Research Methods

For the study, the survey, interview and documentary analysis were employed as components of a multi-strategy investigation to collect data using a questionnaire and interview schedule, and through the analysis of appropriate official documents and minutes of meetings respectively. It was recognised that using only the survey questionnaire for the study on the role of heads of department would place undue reliance on the interpretations of heads of department to draw conclusions about their role in schools. Hence data from the questionnaire survey would be compared with data from interviews as well as analysis of documents. The merit of triangulation is in 'comparing many sources of evidence in order to determine the accuracy of information or

phenomena. It is essentially a means of cross-checking data to establish its validity' (Bush, 2002, p. 68). It is 'a way of checking out insights gleaned from different informants or different sources of data... observers also gain a deeper and clearer understanding of the setting and people being studied' (Taylor and Bogdan, 1998, p. 80). The two approaches to triangulation are: i) triangulation between methods and ii) triangulation within a method. According to McFee (1992), the former compares (at least) two research solutions to a single problem in order to 'validate the outcomes of one approach in terms of the outcomes of another' (p.215) while the latter claims that 'the "reality" of a situation is not to be apprehended from a single view-point. Thus it brings to bear two or more view points on a particular occasion (say those of teacher, pupil and observer)...' (p. 216). The approach adopted by the study was the first one: 'triangulation between methods', in which interviews and documentary analysis would be used to cross-check questionnaire survey findings.

3.5.1 Survey

The survey method using a questionnaire (see pp.184-188) was selected for the study because of its efficiency in collecting data in large amounts at low cost in a short period of time, and structured survey data are amenable to statistical analysis (Burns, 2000; Gall *et al*, 2003). The major strengths of the questionnaire survey are as follows: all respondents answer a set of standard questions at a point of time; administration can be done through the post or by phone; respondents are representative of a defined population; findings can be generalised to the defined population and the use of standard questions facilitates comparisons of individuals (Burns, 2000). Thus the survey can be

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considered as 'the appropriate method when systematic and comparable data are needed...directly from a relatively large number of individuals (Fogelman, 2002, p. 96). However, the survey is not without flaws. Some critics assert that it is less well theorized compared to experiments and does not establish causation for any observed phenomenon (Gillham, 2000b); it is only able to collect superficial data and 'cannot probe deeply into respondents' beliefs, attitudes, and inner experience' (Gall *et al*, 2003, p.222). As Burns (2000) explains, 'the attempt to produce comparable information by standard questions can lead to the obscuring of subtle differences. Simplification of behaviour is the price paid to find patterns and regularities in behaviour by standard measures' (p. 568).

However the potential problems of the survey as a research technique can be minimised in surveys where samples used are large enough to ensure some confidence in the findings and triangulation is performed with some other methodology. Gorard (2001) points out that since even good questionnaires 'tend to generate much poor data, when they are used it is perhaps better that they are used as part of a larger study also involving other approaches' (p. 81). For example, Wise and Bush's (1999) study on academic middle managers in secondary schools had a sample of about 560, and the inclusion of triangulation using case studies of senior managers and departmental staff, checking of documents and observation of meetings involving middle managers. Similarly, this study on the role of heads of department targeted a fairly large sample numbering about 130 heads of department and included interviews for more in-depth knowledge as part of the triangulation process together with documentary analysis.

3.5.2 Interview

To strengthen the research design for the study, the interview was selected as part of the overall methodology for the study to triangulate with or verify the findings of the questionnaire. As Miles and Huberman (1994) point out, the use of interview data for triangulation is to build a verification process into data gathering using multiple sources and modes of evidence. Its major advantage is its adaptability over the questionnaire, making it a suitable research method for triangulation with the questionnaire; the skilled interviewer can follow up an interviewee's responses to follow up leads and obtain more data, clarify responses, build trust and rapport and thus be able to obtain information that the interviewees may not divulge in any other research method (Gall *et al* (2003). Other writers (e.g. Taylor and Bogdan, 1998; Burns, 2000) point out that the interview allows direct verbal interaction between persons. The incidental moods, comments and body language of the interviewee can be noted and there is more flexibility for the researcher to probe for more specific answers or rephrase to avoid misunderstanding or ambiguity. However the interview method has a number of shortcomings which include the possibility of loaded questions being asked, or interviewees not telling the truth particularly, for fear that their superiors may get to know their answers, interviewer bias where questions used lead participants to respond in a certain way; and interviewer's image such as status. Furthermore with interviews being more expensive and time-consuming than questionnaires, it is clear that the number of respondents to be interviewed will have to be limited due to time and financial considerations (Burns, 2000). Finally in an interview anonymity cannot be avoided for the respondents (Gall *et al* (2003).

To overcome the problems mentioned above, firstly, only one interviewer (i.e. the researcher) carried out all the interviews; secondly, special attention was paid to crafting the interview questions; thirdly, interviews were carried out in as non-threatening an atmosphere as possible; and fourthly, interviewees were selected on a voluntary basis.

3.5.3 Documentary Analysis

In the study, documentary analysis was employed as the third research approach to complete the triangulation process as it is commonly used to complement other approaches (Johnson, 1994). Some of the pulls of documentary analysis are low cost and ease of research. As Johnson (1994) points out, an advantage of documentary analysis is its unobtrusiveness as a method of research, and this is proven by the relative convenience of accessing the documents systematically filed in the schools. It also allows previously unrelated materials which have limited circulation such as minutes of meetings to add to knowledge about the topic under study. The researcher was able to conveniently bring together documents from various sources for example, appropriate official documents, to piece together a picture of what heads of department do in cluster secondary schools. This being an 'unobtrusive' method of research also enabled the documentary search to delve into the past events/issues of the subject groups without requiring the heads of department to be present. However the documentary analysis approach is not without its disadvantages. For instance, the documents may not be prepared specifically for research as in a questionnaire (Cortazzi, 2002; Johnson, 1994). A document 'already exists in a definitive form' (Johnson, 1994, p. 58) and 'the research purpose may be different from the purposes behind the original document' (p. 202).

3.6　Validity and Reliability Issues

Validity and reliability are two critical issues in educational research as they reflect the authenticity and quality in any research such as, whether the research is able to stand up to scrutiny or the methodology employed is justifiable (e.g. Bush 2002; Easterby-Smith *et al*, 1994). Reliability refers to the consistency of a measure of a concept and a widely supported definition is that 'reliability relates to the probability that repeating a research procedure or method would produce identical or similar results' (Bush, 2002, p. 60). The underpinning concern is consistency of results, that is, 'a test or procedure produces similar results under constant conditions on all occasions...' (Bell, 1987, pp. 50-51); and 'the operations of a study - such as the data collection procedures - can be repeated, with the same results (Yin, 1994, p.144). The purpose of validity is to judge whether the research accurately describes the phenomenon which it is intended to describe (Bush, 2002). In other words, validity measures 'the extent to which an indicator is a measure of what the researcher wishes to measure' (Sapsford and Evans, 1984, p. 259). On the link between validity and reliability, Bell (1987) explains that, 'if an item is unreliable, then it must also lack validity, but a reliable item is not necessarily also valid' (p. 51).

3.6.1　Ensuring Validity and Reliability for Survey

For the study on the role of heads of department in Singapore, reliability tests were conducted for the pilot study as well as the main study. The pilot study data as well as the main study data were subjected to a test of internal reliability to determine whether the questionnaire was stable or consistent in measuring the concept of role. The reliability of

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the questionnaire was measured by the alpha coefficient to examine its internal consistency using the Cronbach's alpha, a commonly used test of internal reliability, and an estimate based on item inter-correlations and item variances. The key issue for internal reliability is to find out whether the indicators that comprise the scale are consistent, in other words, whether there is a tendency for the scores of the respondents on any one indicator to be related to their scores on all other indicators (Bryman, 2001). The coefficient alpha provides a good estimate of reliability, since the major source of measurement error is due to the sampling of content. Alpha coefficients could range between 1 and 0, denoting perfect internal reliability and no internal reliability respectively. An alpha coefficient which is very low, could indicate that either the test is too short or the items have very little in common (Nunnally, 1967; Bryman, 2001). Thus respondents are less likely to rate themselves similarly across items in the same domain. On the other hand, a high alpha coefficient would mean that there is considerable consistency in the way respondents rate themselves on each of the items which make up a domain. Generally, an alpha coefficient of 0.80 is viewed as an acceptable level of internal reliability although lower alpha coefficients have been accepted in some instances (Bryman, 2001). In the study, overall Cronbach alpha coefficients of 0.86 and 0.81 for the questionnaire employed, were obtained for the pilot study and the main study respectively (see pp. 176-177 & pp. 192-193) suggesting that the questionnaire is unidimensional and consistent.

As some of the potential causes of invalidity in surveys are respondents not completing questionnaires accurately, and respondents who may have different responses from those who responded, to ensure that validity was not compromised in the Singapore study, the

survey data was compared with findings from other sources such as: interviews; checking

of documents; and cross-checking findings with the pilot study.

3.6.2 Obtaining Trustworthiness in Interview

For interviews, applying the reliability test is more problematic as both the concepts of

validity or reliability appear to be associated with positivist research, and therefore are

'inappropriate constructs' (Easterby-Smith *et al*, 1994, p. 89) for qualitative, or

interpretive, approaches. However it is suggested that reliability can still be tested with

two questions: i) Will two interviewers using the schedule or procedure get similar

results? and ii) Will an interviewer obtain a similar picture using the procedures on

different occasions? (Wragg, 1984, p.191). Fowler (1993) explains that this implies

asking the same questions of all interviewees in the same way using a tightly structured

interview schedule. The concern over the overemphasis on reliability for interviews is

that 'validity may be compromised' (Bush, 2002, p. 62), as it is argued that 'in

proportion to the extent to which "reliability" is enhanced..., "validity" would decrease...

the distinctive human element in the interview is necessary to its "validity" as the more

the interviewer becomes rational, calculating, and detached, the less likely the interview

is to be perceived as a friendly transaction, and the more calculated the response also is

likely to be' (Kitwood, 1977 cited in Cohen and Manion, 1994, p.282).

The study on the heads of department's role in Singapore, opted for greater validity using

the semi-structured interview which allows greater flexibility for both interviewer and

participant to clarify issues that may arise even though its use may compromise reliability (Bush, 2002).

Trustworthiness

As the study used a multi-strategy research methodology or mixed method to collect data using a survey questionnaire followed by interviews, but without the two being linked, the interviewees were selected by convenience and not on the basis of results and analysis from the survey. They were 8 heads of department from 6 schools which differed in terms of student enrolment, programmes and management style, albeit all belonged to the same cluster under investigation. This limitation of the research was recognised and steps were taken to address the issue of trustworthiness of the interview (see pp. 167-168 below).

It has been asserted that 'without rigour, research is useless...hence...the attention to reliability and validity' (Morse et al, 2002, p.1). However, as mentioned above, while reliability and validity are well established and suited to quantitative research, these concepts are inappropriate to qualitative research which needs to be addressed from the perspective of the paradigm in which the study is carried out (Merriam, 2005), and which allows the researcher to stay close to the empirical world so as to 'ensure a close fit between the data and what people actually say and do' (Taylor & Bogdan, 1998, p.9). For qualitative research, parallel or quasi-foundational criteria also termed as trustworthiness (Guba & Lincoln, 1989) such as credibility, transferability, dependability and confirmability have been suggested. In qualitative studies, 'trustworthiness of a research report lies at the heart of issues conventionally discussed as validity and

reliability' (Golafshani, 2003 p.601), and internal validity or trustworthiness is based on a 'systematic collection of data, using acceptable research procedures and allowing the procedures and findings to be open to systematic critical analysis from others' (Thomas, 2000 p. 4). Some strategies for discerning trustworthiness include:

i) Triangulation - the use of multiple investigators, multiple sources of data or multiple methods.

ii) Member checks – taking data and their tentative interpretations back to the people to check for accuracy and plausibility.

iii) A statement of the researcher's experience, biases and assumptions at the beginning of the study to enable the reader to better understand how the data might have been interpreted in the way they were.

iv) Long term observation at the research site or repeated observations of the same phenomena.

v) Peer examination – getting colleagues to comment on the findings as they unravel (Guba and Lincoln, 1989; Patton, 2002; and Merriam, 2005).

In the study, trustworthiness was established using i) triangulation of different sources of data, ii) member check and iii) a statement on the researcher's experience and biases.

i) In the triangulation, the interview findings were validated against corroborating evidence in two other sources of data, firstly, the survey data, and secondly, data from official documents (e.g. minutes of meetings at school and cluster levels, and official documents such as Principals' handbooks, SEM and EPMS documents and job descriptions). As Gall *et al* (2003) assert 'the key to triangulation is to vary in some way the approach used to generate the finding that you are seeking to corroborate' (p.464). For

the study, the triangulation using multiple data sources (quantitative as well as qualitative data) showed that there was convergence of findings thereby affirming consistencies among the different findings as illustrated in Chapter 4.

ii) Member checks, considered by Heyrman and Goedhuys, (2005) as 'the first method to safeguard the validity of qualitative data' were also employed to establish trustworthiness. as the 'validity of a researcher's reconstruction of an individual's emic perspective can be corroborated by member checking which is the process of having these individuals review statements made in the researcher's report for accuracy and completeness'(Gall, *et al*, 2003, p. 464) Thus interview transcripts were returned to respondents who were asked to verify and comment on their accuracy. In addition, the researcher maintained contact (through email and when possible, face to face) with the respondents at various stages of the study to clarify the interview data when the need arose, an action much in line with Guba and Lincoln's (1989) suggestion to be in continual contact with the respondents throughout the study. Member checking was employed rather than peer examination by colleagues as the latter could breach the confidentiality promised to the heads of department.

iii) The researcher's experience and knowledge, explicitly stated (see pp. 200-201) to help readers understand her assumptions and biases, in the interpretation of the data.

The concept of external validity has been problematic to qualitative researchers as generalisability implies the extrapolation from a sample to a population; it relates to whether the conclusions of a study have any larger import (Miles and Huberman, 1994);

and whether the conclusions are transferable to other contexts. Do they 'fit'? (Lincoln & Guba, 1985). As qualitative researchers seek 'to understand the particular in depth rather than...what is generally true of the many' (Merriam, 2005 p.5), the possibility of generalising qualitative findings have been questioned by proponents of the grounded theory approach to case study research. However there are other researchers who believe in generalisability of case study findings by designing the studies in ways that will enhance the findings' applicability to other cases that also represent the phenomenon under study. One approach would be to study a case that is typical of the phenomenon (Gall, *et al*, 2003). Another approach to the generalisability issue is to shift the responsibility for generalising, from the researchers to the 'consumers' of the findings. This concept of 'reader/user generalizability' (Wilson, 1979) implies responsibility of each reader or user of the case study research to determine the applicability of the findings in their own situations. Several strategies can be used to help readers of qualitative reports determine the generalisibility of findings to their particular situation/s:

i)　Researchers should provide a thick description of the participants and contexts that comprise the study so that readers who are interested in applying the findings can determine how similar they are to the situation of interest to them or how closely their situations match the research situation and hence whether findings can be transferred.

ii)　Researchers should address the issue of whether the selected case is representative of the general phenomenon being investigated.

iii)　If a multiple-case design was used, the researchers should conduct a cross-case analysis to help the reader determine where there was generalisability at least within the cases that were studied (Gall, *et al*, 2003).

To facilitate 'reader/user generalizability', the researcher maintained a verbatim copy of the interviews and details of data collection or 'audit trail' (Gall, *et al*, 2003) which documented the interview process including source and method of recording raw data, data analysis and synthesis, and interview schedule. According to Yin (1994) this strong 'chain of evidence' or clear, meaningful links between research questions, raw data, and findings is necessary to allow readers to follow and understand the situation leading to certain conclusions and even to attempt a replication in another setting.

In quantitative studies, reliability is seen in the replicability of a study's findings. However, in qualitative studies, reliability is a problematic issue as qualitative researchers seek to 'understand the world from the perspective of those around it' (Merriam, 2005 p. 4) and it is likely that replication of a qualitative research will not produce the same results. Thus it is not feasible to set a benchmark for repeated measures to establish reliability in the conventional way (Merriam, 2005). Guba and Lincoln (1989) suggest dependability or consistency in place of reliability. The objective is on whether the results 'are consistent with the data collected' (Merriam, 2005 p.4) and not replicability of the results to other studies. Reliability can be checked by using strategies such as:

1. Triangulation,

2. Peer examination

3. Audit trail which leaves behind details which permit other researchers to use the original report to duplicate the study.

This study depended on all three approaches. In the triangulation as explained in the 'trustworthiness' section, the interview findings were validated against corroborating evidence in two other sources of data, firstly, the survey data, and secondly, data from official documents (e.g. minutes of meetings at school and cluster levels, and official documents such as Principals' handbooks, SEM and EPMS documents and job descriptions (see pp. 167-168). For peer examination, verification of findings was done by two heads of department and a vice-principal from different secondary schools who provided comments which were positive and supported the interview findings presented in Chapter Four. The researcher left a clear trail by documentation of the events throughout the interview for interested others to track.

3.6.3   Validity and Reliability for Documentary Analysis

For documentary analysis, the question of reliability is less problematic since for some documents such as minutes of meetings 'the data are in permanent form and hence can be subject to re-analysis, allowing reliability checks and replication studies' (Robson, 1994, p.243). In the case of documentary analysis the validity issue arises from its weaknesses - the documents may not be prepared specifically for research as in a questionnaire (Cortazzi, 2002; Johnson, 1994). Johnson, (1994) asserts that a document 'already exists in a definitive form' (p. 58) and 'the research purpose may be different from the purposes behind the original document' (p. 202). Therefore when resorting to 'inadvertent sources' (Elton, 1967, p.101) such as documents which are used for purposes other than that originally intended by the writer, 'the acceptability of a document as a source of evidence cannot be taken for granted. It is essential to appraise the authenticity, credibility and

representativeness of any document used in research' (Johnson, 1994, p. 27). Thus the need for rigorous analysis or 'internal criticism' that is, to look beyond the 'witting' evidence for 'unwitting' evidence related to the topic under study. For example, in using minutes of meetings, it is necessary to comb through the minutes and read between the lines or as Marwick (1970) advises, 'to squeeze the last drop' out of the records to gain insights and detailed knowledge. Furthermore, 'administrative documents are not neutral reports of events. They are shaped by political context and by cultural and ideological assumptions' (Johnson, 1994, p. 27). The content analysis of the minutes bore this out. Typically, the principal in charge of the subject group was the chair while the heads of department were rotated to take the minutes of meetings. The minutes were vetted by the principals in charge before they went into print and circulation to members. The benefit of this procedure of getting the principals' 'approval' would be giving the documents more acceptability and ensuring the documents' authenticity and genuineness. However because of the need for the recorders to be always mindful of the 'political' context in which the minutes were being recorded the 'witting' evidence could contain bias and hence might not give a deeper insight into all that actually went on at the meetings or the reactions, opinions and perceptions of members to the issues being discussed.

For the study on the role of heads of department in Singapore schools, triangulation was used as a means of cross-checking documentary data with interview and survey data to establish its validity. As Robson (1994) points out, 'the documents have been written for some purpose other than for the research, and it is difficult or impossible to allow for the biases or distortions that this introduces...[There is a] need for triangulation with other accounts [and] data sources to address this problem' (p. 243).

3.7 Ethical Issues

The key ethical issues in the study are firstly access and acceptance. Access is related to issues such as obtaining permission to distribute questionnaires, check documents and conduct interviews (Fogelman, 2002). Therefore as a first step, on 1 November 2000, approval was sought from the Ministry of Education, Singapore, using the Ministry of Education's prescribed forms, to conduct the study in the 16 secondary schools of the selected school cluster (see p. 181). After approval was granted by the Ministry of Education in the same month (see Appendix 4: Approval Letter), the researcher approached the principals of the 16 secondary schools but one (one of the schools was the researcher's own school) personally and obtained their permission for the research to be carried out in the last week of November, 2000 with the heads of department in their schools. The ethical framework for the study was guided by the underlying principles of educational research which set out broadly the ethical boundaries for research, among which is the need for researchers to 'strike a balance between the demands placed on them as professional scientists in pursuit of truth, and their subjects' rights and values potentially threatened by the research' (Cohen and Manion, 1994, p. 347).

The likely ethical issues in the study were the invasion of personal privacy and the fear of participants that their respective supervisors would get to know what was in their minds. The approach taken was to assure the heads of department that participation was voluntary and that their answers would be kept strictly confidential. Voluntary participation and keeping information confidential are deemed to be two very important requirements in the code of ethics for educational research (Burns, 2000; Pring, 2000;

Fogelman, 2002). 'The concept of the informed consent of respondents is crucial' (Fogelman, 2002, p. 96) as it concerns getting the consent and co-operation of the participants so as to ensure that their right to freedom and self-determination are not violated and that their involvement in any study is voluntary (Cohen and Manion, 1994).

To ensure that the participants understood the purpose of the study and participated voluntarily, the cover page of the questionnaire contained information on what the research was about and that there would be confidentiality in the use of responses (see Appendix 6: HOD Questionnaire). When the survey questionnaires were handed to the various school principals or vice-principals for distribution to their heads of department, they were also informed that participation was voluntary and that all information would be used under strict confidentiality. This was conveyed to all participants of the pilot study and the main study to assure them of the researcher's commitment to maintaining confidentiality and 'to ensure that whatever is promised does actually happen' (Fogelman, 2002, p. 97).

3.8   Quantitative Method: Questionnaire Survey

3.8.1   Data Collection: Pilot Study

A pilot study was conducted in January 2000 to establish the soundness of the questionnaire intended for the main study. Piloting the questionnaire was necessary to get feedback about the question items and the usefulness of the responses for it is only when the pilot group 'completes your questionnaire and provides feedback that you

know for sure that all is well' (Bell, 2002, p. 167). Piloting the study would also be helpful in planning how to record and analyse the returns as, 'the first truth of research analysis is that it does not start the day after the last item of data is collected...the analytical strategies must be planned early in the research processes...' (Youngman, 1994, p.3). Gorard (2001) likens it to a 'full dress rehearsal for the whole research design' (p.102) using 'a two-stage pre-testing process' (p.103) of first trialing the questionnaire on a few people willing to help and then carrying out the full pilot.

As an important first step in the pilot study, the questionnaire was tried out on a 'panel' of 'competent colleagues who are familiar with the purpose of the survey' (Burns, 2000, p. 585), consisting of a lecturer, a vice- principal and two heads of department who were approached by the researcher to help look at the questionnaire design and provide feedback for its improvement. The panel of 'experts' were asked to comment freely on the instrument in terms of ambiguities of meaning and unclear wordings, repetitions and irrelevance of items so as to ensure that the statements were specific and the content of the items '...are a representative sample of the behaviour domain under investigation' (Burns, 2000, p. 585). As a result of the panel's valuable feedback, the questionnaire was revised with regard to the wording/phrasing of some statements. For example, item 10: 'My Principal is only concerned with getting the job done, not about the HODs' was amended to read: 'My Principal is concerned with the HODs and not only about getting the job done'. Another example is item15: 'My relationship with the staff is negatively affected by the Superintendent' was amended to read: 'My relationship with the staff is not negatively affected by the Superintendent'. This was to avoid confusion in using the

rating scale of 1 to 5 where 5 represents 'to a very great extent' in terms of a positive perception and 1 'to no extent' in terms of a negative perception.

Sample

Next, the full pilot was undertaken. Ten heads of department from the cluster schools were recruited for the pilot study. They were among some heads of department approached by the researcher at a cluster seminar to take part in the pilot study. The researcher spoke to the heads of department individually about the purpose of the pilot study and gave them the assurance that there would be confidentiality in the treatment of their responses. The researcher administered the questionnaire individually to each head of department who on completion of the questionnaire returned the completed questionnaire in a sealed envelope to the researcher. The response rate was 100 percent, far exceeding the '66 percent' acceptable response rate quoted by Gall *et al* (2003, p. 230) for a pilot test.

3.8.2   Data Analysis: Pilot Study

Reliability of Data

An item analysis of the pilot study data was carried out and means, standard deviation and correlation matrix were obtained. The data were subjected to a test of internal reliability to determine whether the questionnaire was stable or consistent in measuring the concept of role. Reliability refers to the consistency of a measure of a concept. The

reliability of the questionnaire was measured by the alpha coefficient to examine its internal consistency using the Cronbach's alpha, a commonly used test of internal reliability, and an estimate based on item inter-correlations and item variances. The test for internal reliability is used to find out whether the indicators that comprise the scale are consistent, in other words, whether there is a tendency for the scores of the respondents on any one indicator to be related to their scores on all other indicators (Bryman, 2001). The coefficient alpha provides a good estimate of reliability, since the major source of measurement error is due to the sampling of content. Based on a range between 1 and 0, denoting perfect internal reliability and no internal reliability respectively, a very low alpha coefficient, could indicate that either the test is too short or the items have very little in common (Nunnally, 1967; Bryman, 2001) and respondents are less likely to rate themselves similarly across items in the same domain. On the other hand, a high alpha coefficient would mean that there is considerable consistency in the way respondents rate themselves on each of the items which make up a domain. Benchmarked against an alpha coefficient of 0.80 which is generally an acceptable level of internal reliability (Bryman, 2001), the pilot study registered a Cronbach overall alpha value of 0.86 for the questionnaire suggesting that the questionnaire was unidimensional and consistent.

3.8.3 Data Collection: Main Study

Sample

For the main study a sampling exercise was carried out to obtain a sample from the

population of all the secondary schools in school clusters in Singapore. Using the sampling procedure explained below (see pp.179-182), a sample comprising 16 secondary schools from one school cluster was selected.

The need to sample which involves taking a portion of the population, making observations on it and then generalising what is found to the population is well documented. For example, Gall *et al* (2003) explain that 'educational researchers rarely can investigate the entire population of individuals ... they must select a sample of individuals to study' (p. 163), and Burns (2000) argues that 'generalisation is a necessary scientific procedure, since rarely is it possible to study all members of a defined population' (p. 82). Using a sample also saves time and money for the researcher as it is ' a useful short cut, leading to results that can be almost as accurate as those for a full census of the population ... for a fraction of the cost' (Gorard, 2001, p.10). Samples can be drawn from target populations employing two main groups of methods: i) probability sampling and ii) non-probability sampling.

Probability sampling means that each individual in the population has a known probability of being selected by chance; however it is dependent on the availability and accessibility of a sampling frame i.e. a list of all the individual members of the population. Examples are: simple random sampling, systematic sampling, stratified sampling and cluster sampling. In non-probability sampling such as convenience sampling and purposeful sampling, individuals are selected not by chance, but by some other means (Fogelman, 2002; Gall *et al*, 2003). It is used by more than 95% of social sciences research studies despite its difficulty in making valid inferences about a

population (Ludbrook & Dudley, 1998), as it is easier to select compared to a random sample when studying individuals in their natural environment (Gall *et al*, 2003).

Simple random sampling accords all the individuals in the defined population an equal and independent chance of being selected at random while systematic sampling draws the sample at fixed intervals systematically rather than randomly. Stratified sampling ensures that certain subgroups or strata in the population are adequately represented by dividing the sampling frame into the groups and then sampling each randomly. Cluster sampling, samples whole natural groups of individuals or institutions grouped together geographically rather than individuals; it retains the randomness and allows a research design within the individual researcher's scope. It first selects a sample of geographical or administrative areas and then a final sample from within the areas. Convenience sampling or opportunity sampling, selects a sample that is conveniently accessible; there is no proper sampling and hence sound claims of generalisation to a wider population cannot be made. Purposeful or purposive sampling applies the researcher's experience and judgement to select cases that are representative and suit the study's purpose (Burns, 2000; Fogelman, 2002; Gall *et al*, 2003); and which are likely to be information-rich in relation to the purposes of a qualitative study (Patton, 2001).

For the study, cluster sampling was used to select the sample from the population of all the secondary schools in school clusters in Singapore. In the Singapore educational context, schools are distributed over four geographical areas or zones namely north, east, south and west. At the time of the study, there were 24 school clusters spread out unevenly in the four zones. The school clusters differed in terms of size (i.e. number of

schools), type (i.e. composition of schools) as well as years of existence. In size, they varied from 7 to 18 schools per school cluster. Composition-wise, the clusters could be an 'all primary schools' cluster, 'all secondary schools' cluster, or a mixed cluster. An example of a mixed school cluster is one consisting of primary schools, secondary schools and junior colleges or one with just secondary schools and junior colleges. School clusters range from newly formed ones to established clusters such as the pioneer clusters which began in 1997.

Cluster sampling was adopted to select the sample as the school clusters comprised a number of schools spread over a geographical area and lent themselves well to this method of sampling. The selection of the sample was guided by the following criteria: i) the school cluster should be one which is involved in the Ministry of Education's *School Cluster* project implemented in 1997; ii) the cluster should have a majority of secondary schools in its composition; iii) the choice should facilitate administrative convenience as far as possible. The first two criteria were necessary because the study was on the role of heads of department in secondary schools of a school cluster. The third criterion is for time, cost as well as administrative management considerations in carrying out the survey, for as Fogelman (2002) asserts, by employing cluster sampling where the institutions or the individuals in the sample are grouped together geographically, the researcher can reduce time and cost and enhance control over administrative procedures in carrying out the survey. Examples of cluster sampling cited by Fogelman are Wise's (2001) study of middle managers in 94 schools in three Midlands authorities, and Wilson's (2001) survey of special needs provision in 203 comprehensive schools in five North England LEAs.

The selection of the sample (see Figure 12 below) follows the cluster sampling procedure which first selects a sample of a geographical or administrative area and then a final sample from within the area (see p. 179). For the study, the geographical area selected was the North Zone and from it a school cluster was chosen as the sample. The selected sample met the criteria set. Firstly, the school cluster was one of the four pilot clusters in the 'School Cluster' project in Singapore in 1997. Secondly, the cluster had 16 secondary schools, five of which were in the School Cluster pilot project in 1997, and 2 junior colleges (excluded from the study as the focus was on secondary schools). Thirdly, the schools were in close geographical proximity in the zone therefore providing the administrative convenience for the study.

The selected cluster sample comprised a mix of schools in terms of age, size and type of school (e.g. neighbourhood, autonomous etc). Similar to other clusters, it had government schools and government-aided schools and the majority of the schools were neighbourhood schools. In this respect the sample cluster of secondary schools could be considered reasonably representative of the secondary schools in Singapore. The rationale for this is that in Singapore, schools are spread out all over the island state and there is a good mix of government schools and government-aided schools. Zoning of schools is done geographically and not because of distinguishing factors such as socio-economic background or quality of schools and every zone has its fair share of primary schools, secondary schools and junior colleges with the majority being neighbourhood schools. Therefore any school in one zone would be representative of any other school in any other zone.

Figure 12: Sampling Procedure for Survey

Geographical Zones in Singapore Educational System

West Zone	* North Zone	East Zone	South Zone
X X X X X	X X X X X X X	X X X X X X X	X X X X X

x = school clusters

* Sampling Procedure:

i)   Selection of North Zone

ii)   Selection of one school cluster from North Zone

Characteristics of heads of department in the sample who completed and returned the questionnaires are provided in Table 3 below. In terms of gender, there were 57 females (57.6%) and 42 males (42.4%). In terms of experience as head of department nearly two thirds (61.6%) were relatively new to their role having chalked up between 1-4 years' experience while in terms of experience as teacher, nearly three-quarters (71.1%) had been in the service for 10 or more years. Where training was concerned only about one-third (36.4%) had received formal training for the role in terms of the 4-month Diploma in Departmental Management (DDM) course (equivalent to the Further Professional Development in Education [FPDE] course before 1998), conducted by the National Institute of Education. And in terms of departmental size, more than half of the departmental heads (54.5%) were in charge of relatively big departments with 7 or more staff. Between them, the heads of department oversaw a total of ten subject areas: English Language & English

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Literature, Mathematics, Science, Humanities, Languages, Craft & Technology, Aesthetics & Physical Education, Information Technology, Pupil Welfare, and Discipline. The heads of department were distributed unevenly among the schools depending on their size in terms of student population. Four of the schools were in the newly started group (of one year or less); they had very small student populations (below 500) comprising only secondary one pupils or only secondary one and two pupils; and correspondingly smaller permitted teacher complements and between four to six heads of department. On the other hand the older, more established schools had larger student populations, usually above one thousand and as many as the maximum of ten heads of department permitted by the Ministry of Education.

Table 3: Background Characteristics of Heads of Department in Survey (N=99)

Gender	42.4% (Male)	57.6% (Female)
Training (DDM/FPDE)	36.4% (Trained)	63.6.% (Untrained)
Years as head of department	61.6% (1-4 years) 24.2% (5-9 years) 11.1% (>10 years) 3.1% (no response)	
Years as teacher	10.1% (1- 4 years) 15.2% (5- 9 years) 71.1% (>10 years) 3.6% (no response)	
Size of department	12.1% (0 teacher) 9.1% (1-3 teachers) 23.2% (4- 6 teachers) 34.3% (7-10 teachers) 20.2% (> 10 teachers) 1.1% (no response)	

Development of Questionnaire

A new questionnaire was developed for the study as no existing instrument was found to suit the topic under investigation. Reference was made to cluster annual self appraisal survey questionnaires as well as local school climate survey questionnaires (e.g. Cluster Self Appraisal, 1998; Teachers' Survey, 1997) for leads. These sources were found to be relevant although they were not targeted specifically at heads of department, the former being evaluation surveys for school leaders and the latter targeted at the larger population of teachers. From these sources, statements which were found to be relevant were selected and adapted for the formulation of the items in the HOD questionnaire based on the conceptual framework for the study (see pp. 138 & 142) as well as the research questions (see pp. 147-148). These statements/questions regarding the role of heads of department were formulated around the variables or themes of work culture, role tensions and training and professional development against the background of a school cluster environment (see Appendix 6: HOD Questionnaire). The questionnaire design followed the 'logical order' of sections of a typical questionnaire such as an introduction (to obtain the cooperation of respondents), the substantive questions (on the research itself), and the background questions (on personal characteristics of respondents) (Gorard, 2001). Hence the questionnaire contained a letter of introduction explaining the purpose of the study, who was conducting it, its importance and why the respondent's help was needed. It also contained a reassurance of the confidentiality of the respondent's answers and also how the completed questionnaire was to be returned. The substantive questions section was placed before the background questions section as the former items are 'the most interesting and ...what the respondent has agreed to answer' (Gorard, 2001, p. 89) while

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the latter which concerns the respondents' personal and work characteristics 'can appear intrusive' (p. 89). Examples of the main sections and questions/items are shown in Table 4 below.

The pool of items was formulated from the themes namely work culture, role tensions and training and professional development (see pp.138 & 153) and items which reflected these concepts and were relevant to cluster secondary schools were drawn up as the study's focus was on the impact of the cluster system on the role of heads of department in secondary schools. The questionnaire contained 33 items in all, with 26 items in the main section and 7 items in the background information section (See Table 4, p.188; Appendix 6: HOD Questionnaire). The questionnaire had a variety of item types: scale items, closed items and an open-ended item, each type with its fair share of advantages and disadvantages (Cohen and Manion, 1994; Burns, 2000; Gorard, 2001; Gall *et al*, 2003). Gorard (2001) argues that 'there may be so little similarity between responses to forced-choice and open-ended questions it is probably advisable to mix the types of questions...' (p. 93). Of the 26 items in the main section, 23 are scale items, 2 closed (multiple-choice) items and 1 an open-ended item while, in the general/background information section, 6 questions are closed (multiple-choice) items and one required respondents to fill in the blank (see Table 4 below).

For the scale items a five-point Likert scale was employed which asks for the extent of agreement with an attitude item or statement. Respondents were required to indicate their choice on the five-point Likert scale as follows: 5 = to a very great extent, 4 = to a considerable extent, 3 = to some extent, 2 = to a slight extent and 1 = to no extent. The

attractions of the Likert-type scale include its ease of preparation, and the fact that the method is based entirely on empirical data regarding subjects' responses rather than subjective opinions of judges; it also produces more homogeneous scales and the probability that a unitary attitude is being measured, and therefore that validity and reliability are reasonably high. On the other hand, it has the disadvantage of being only an ordinal scale which means that although it makes possible the ranking of individuals in terms of the favourableness of their attitude toward a given object, it does not provide a basis for indicating how much more favourable one is than another, and meaning to the total score of an individual, since many patterns of response to the various items may produce the same score (Burns, 2000).

Closed questions have their advantage over open-ended ones in that they lend themselves easily to systematic analysis for although they may be harder to design well than open-ended questions, they 'should then be much easier to analyse' (Gorard, 2001, p. 95). In view of their inflexibility in allowing only prespecified responses, the construction of the multiple-choice questions tried to make the questions 'as inclusive and flexible' (Gorard, 2001, p. 96) as open-ended ones and to avoid the use of negative statements and double-barrelled questions so as to make the questions easy to answer and to avoid ambiguity.

The third type of item, the open-ended question is targeted at obtaining respondents' free responses. Open-ended questions are described as the 'easiest types of question to design...because they are the most natural way of expressing a question in everyday conversation' (Gorard, 2001, p. 93), but they are also time-consuming as respondents need more time to complete the questionnaire (Cohen and Manion, 1994; Gall *et al*,

2003). As they are self-completion items, the researcher 'cannot probe respondents to find out just what they mean by particular responses' (Cohen and Manion, 1994, p. 94), but their biggest drawback concerns systematic analysis, as 'simple scales...mean that the respondent is the main source of measurement error, but open-ended questions with post hoc classification of the results adds another layer of measurement error due to the researcher' (Gorard, 2001, p. 93). Thus open-ended questions appear to be most appropriate where the responses are not meant to be used to create a statistical pattern, but to help explain it (Gorard 2001). In the study, the open ended responses were used to complement and augment the statistical findings. The 3 types of questionnaire items and selected statements/items are shown in Table 4 below (see also Appendix 6).

Administration of Questionnaire

The study adopted the self-administered approach of conducting the survey as there were opportunities for the researcher to drop off and collect forms in batches at the selected schools thereby economising on travelling, as well as other advantages. The self-administered approach reduces the 'reactivity effect or interviewer bias which can be created by the presence of someone who has a vested interest in the results' (Gorard, 2001, p. 83), strengthens the confidentiality element in conducting surveys and also allows the respondent to be anonymous thereby creating a more trusting atmosphere and possibly resulting in more truthful responses. These advantages outweighed the disadvantages of the researcher not being present during the administration of the questionnaires to handle queries, manage the order of answering the questions and so on (Gorard, 2001).

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Table 4: Questionnaire - Main Sections and Sample Statements/Items

Sections	Types/No of Items	Sample Statements/Item Nos
Main Section	Likert (23)	3. I feel a lot of pressure in my job 9. My principal gives enough support and guidance for us to meet our goals at work 16. Through cluster activities I am better able to appraise the staff in my school 20. The HOD's role is clearly defined
	Multiple choice/ Closed (2)	24. I see myself staying in the teaching profession for: (Please tick one) • Up till retirement/up till end of contract • Less than 1 year • 1 to 3 years • 5 to 10 years • 10 to 20 years • More than 20 years
	Open-ended (1)	26. In what ways has the cluster affected your role?
Sub Total	26	
General Section	Multiple choice/ Closed (6)	1. Male Female
	Fill in the blank (1)	4. I have............teachers in my department (please fill in the number)
Sub Total	7	
Total	33	

Adopting a personal contact approach, the researcher met the principals of all the secondary schools except one (one of the schools was the researcher's own school) individually in November 2000 to explain the rationale of the study and request permission to conduct the study among their heads of department. The researcher also

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explained the type of information to be gathered by way of the questionnaire, the amount of time the survey would take and gave an assurance of confidentiality in the reporting of findings and that participation was voluntary. All the principals of the schools approached, agreed to allow their heads of department to participate in the study.

In the last week of November 2000, 132 questionnaires each accompanied by a cover letter (see Appendix 5) explaining the researcher's intention and purpose of the study and a self-addressed stamped envelope, were handed in batches to the respective principals/vice-principals of the secondary schools of the school cluster. For the researcher's own school, the questionnaires were distributed by the researcher herself assisted by her vice principal. The assistance of the principals/vice principals was obtained to distribute the questionnaires to their respective heads of department. The principals/vice-principals were requested to inform all their heads of department to return the questionnaires using the self-addressed, stamped envelopes attached, by the end of December 2000 as far as possible. They were again informed about the rationale of the study, the type of information to be gathered and the amount of time involved, in addition to the confidentiality in the reporting of results and the voluntary nature of participation. The principals/vice-principals were requested to inform their heads of department about this. Within one and half months from the administration of the questionnaires, 99 completed questionnaires were returned, representing 75% of the questionnaires distributed. This response rate was considered satisfactory as it compared favourably with the 73% or above acceptable response rate for well-designed mail surveys (Gorard, 2001). The data processing started in April 2001.

3.8.4 Data Analysis: Survey Data

The analysis of survey data involved a) analysis of the survey data in statistical form, and b) analysis of the survey open response data qualitatively. Two separate analysis processes were used:

a) For the quantitative questionnaire survey data (items 1-25), the process involved scoring of the quantifiable data and data reduction to form scales.

b) For the qualitative data from the questionnaire open responses (item 26), content analysis using a coding system was carried out.

a) Scoring and Data Reduction - quantitative survey data

Scoring of quantifiable questionnaire survey data (items 1-25) was done using different scoring systems for i) Likert items 1 to 23; ii) multiple choice item 24; and iii) multiple choice item 25 (see Appendix 8).

A data reduction exercise was carried out to reduce the amount of data collected to manageable proportions by creating scales from clustering or combining of items, where it was conceptually and empirically justifiable. The data reduction procedure incorporated the computation and examination of inter-correlations of the items in the questionnaire and combining them to form separate subscales. To explore ex post facto the dimensionality of the questionnaire items, the construction of an item inter-correlation matrix of 25 items of the questionnaire (excluding the open-ended item: question 26) was carried out and factor analysis with Varimax Rotation was performed to identify any

clustering of items, which would indicate the existence of separate factors among the 25 items. This exercise was carried out using the SPSS Students/Version 12.0 programme. Based on factor analysis, the 25 items were empirically clustered or grouped into 7 subscales based on factors. The number of items in each subscale or group ranged from 6 items for subscale 1, to 2 items for subscales 6 and 7 as shown in the factor structure in Table 5 below (see also Appendix 9: Factor Analysis with Varimax Rotation).

Table 5: Factor Structure

Factor (F)	Subscale	Questionnaire items
1	Management Attributes	7, 8, 9, 10, 11, 12
2	Competence	13, 14, 16, 17, 18
3	Workload	3, 19, 22
4	Expectations	4, 5, 6, 25
5	Satisfaction	1, 2, 23
6	Role Definition	20, 21
7	Commitment	15, 24

The seven-factor structure appeared to be a reasonable interpretation of the dimensionality in the set of 25 items. The structure was conceptually easy to understand and provided a meaningful framework for examining the data:

i)   Factor 1/Subscale 'Management Attributes' covered 6 questionnaire items (7, 8, 9, 10, 11, 12) which probed whether principals and school management (i.e. principals and vice-principals) were approachable, understanding, accessible and supportive.

ii) Factor 2/Subscale 'Competence' grouped 5 items (13, 14, 16, 17, 18) for assessment of the 'competence' of the heads of department's leadership and

management skills such as decision-making, ability to appraise, and whether they benefited from cluster training.

iii)   Factor 3/Subscale 'Workload' grouped 3 items (3, 19, 22) which focused on the nature of the role of the heads of department with regard to stress, pressure and time constraint.

iv)   Factor 4/Subscale 'Expectations' covered 4 items (4, 5, 6, 25) which focused on assessing whether heads of department were knowledgeable about the standards of performance expected of the role, their expectations of HODship as well as their expectations about colleagues and school facilities/equipment.

v)   Factor 5/Subscale 'Satisfaction' covered 3 items (1, 2, 23) which probed heads of department's satisfaction with their role. The items focused on whether they liked their role and whether their abilities were put to good use.

vi)   Factor 6/Subscale 'Role Definition' clustered 2 items (20, 21) which focused on whether there was clarity about the definition of the role.

vii)   Factor 7/Subscale 'Commitment' had 2 items (15, 24) which probed heads of department's commitment to stay on in the role.

Reliability of Subscales

The reliability of each subscale was empirically checked. The reliability of the 7 subscales are shown in the coefficients of reliability in Table 6 which are from Cronbach's alpha, an estimate of internal consistency based on item intercorrelations and item variances. The indication of a high alpha coefficient is that there is considerable consistency in how the respondents (HODs) in the study rated themselves on each of the

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items that make up a variable score. Conversely a low alpha coefficient indicates that the respondents in the study are less likely to be consistent in rating themselves similarly across items. As it turned out, there was an overall Cronbach alpha coefficient of 0.81 for the questionnaire, which compared favourably with the reliability coefficient of 0.86 obtained for the pilot study (see p.177). The Cronbach alpha coefficients for the 7 subscales ranged from 0.91 for factor 1 to 0.12 for factor 7 (See Table 6). Apart from factor 7 all the other reliability coefficients were relatively high and this fact together with the a very high reliability coefficient (0.81) for the overall questionnaire confirmed the internal consistency of the HOD questionnaire and also indicated that the measures had construct validity subscales.

Table 6: Reliability Coefficients

Subscale	No of Items	Cronbach alpha coefficient
Total	25	0.81
Management Attributes (F1)	6	0.91
Competence (F2)	5	0.78
Workload (F3)	3	0.78
Expectations (F4)	4	0.64
Satisfaction (F5)	3	0.45
Role Definition (F6)	2	0.80
Commitment (F7)	2	0.12

F = factor

b) Coding and Content Analysis - Qualitative Survey Open Response Data:

In the data analysis, the task of categorising data systematically was to 'permit analysis and comparison of meanings within categories' (Burns, 2000, p.430). The aspects or

dimensions of 'work culture', 'role tensions', and 'training and professional development' as shown in the conceptual framework (see Figure 9, p.138) served as rubrics for the data analysis. The 99 sets of responses to the open-ended item (item 26) of the questionnaire: 'In what ways has the cluster affected the HOD's role?' were subjected to coding and content analysis to determine what impact the cluster had on the heads of department's role as perceived by the heads of department. A category-coding procedure or 'content classification system' (Gall et al, 2003, p.280) was developed to group the responses as 'the essence of a content analysis is the coding of the document's messages into categories' (Gall et al, 2003, p.279). The content analysis involved the following steps:

i)   Selection of 3 three broad categories based on the themes of 'work culture', 'role tensions', and 'training and professional development' incorporated in the conceptual framework (see Figure 9, p.138).

ii)   Selection of sub-categories for each broad category based on factors also incorporated in the conceptual framework (see Figure 10, p. 142). The selection of both main categories and sub-categories based on themes and factors in the conceptual framework of the study was to keep the analysis of data within the parameters of the conceptual framework of the study. A fourth category: 'others' was included for all other data which did not fall into the three broad categories mentioned above.

iii)   Next, all the responses to item 26 were analysed and responses that fitted a particular category of the content-analysis system were coded and entered in the category with the aid of a computer. A numbering system (1 to 99) was used to differentiate the open responses of the 99 participants with each respondent being assigned a number for

reporting purposes. The analysis was done by the researcher and an assistant (an ex student of the researcher's school, waiting for admission to an Australian university for under-graduate studies).

iv) Within each broad category, responses were further analysed and slotted into the sub-categories. This involved numerous rounds of analysis by both researcher and her assistant until all data were deemed to be appropriately categorised.

v) The final stage was the interpretation and presentation of the results in Chapter 4. The following were the categories/sub-categories used in the content analysis of the open response data (see Chapter 4):

Category 1: 'Work Culture'

Sub-categories:

- work relationships (includes collaboration, networking, teamwork, professional sharing/exchange of ideas, resources;

- role functions (includes scope of role, role expectations, cluster responsibilities).

Category 2: 'Role Tensions'

Sub-categories:

- workload and time constraint,

- role ambiguity

- role conflict

- pressure and stress

Category 3: 'Training and Professional Development'

Sub-categories:

- competence

- formal training (includes courses, workshops, seminars)

- informal training (includes collegial collaboration and learning from professional

  sharing, leadership exposure).

Table 7 below shows examples of coding transcripts corresponding to the categories/sub-categories for the open response data (item 26).

Table 7: Examples of Coding Transcripts for Open Response Data

Categories/sub categories	Examples of coding transcripts
Work Culture Work relationships (includes collaboration, networking, teamwork, professional sharing/exchange of ideas, resources)	) 'Being in the cluster, HODs are able to collaborate with HODs in other schools'. (69)) 'Through more interaction and collaboration with other leaders in the cluster, there was a great deal of exchange of ideas'. (86)
Role functions (includes scope of role, role expectations, cluster responsibilities)	) 'With the introduction of the cluster, it widened the scope and expectations as a HOD/leader'. (85)) 'I'm an HOD not only in my school but also to plan activities with the cluster '. (65)
Role Tensions Workload & time constraint	) 'Too many activities/seminars/courses organised resulting in loss of my time'. (52)
Role ambiguity	) 'Cluster is supposed to cut down work but it seems the opposite. (43)
Role conflict	) 'There is more cluster work and our school work gets affected. (54)
Pressure and stress	) 'Cluster expectations put pressure on my department's ability to perform and keep on par with cluster expectations'. 47)
Training & professional development Competence	) 'More interaction with other HoDs in other schools provided greater learning experiences for the role of a HoD. The exposure has been invaluable and I learnt a lot. My learning curve is exponential. (78)
'Formal' training (includes courses, workshops, seminars)	) 'We are also provided with training in the MOE's new initiatives through workshops/courses organized by the cluster. (69)
'Informal' training (includes collegial collaboration & learning from professional sharing, leadership exposure)	) 'Sharing sessions...have provided HODs with more opportunities for insightful learning and acquisition of skills to manage departments. (51)) '...the cluster has given my staff and I, the opportunity to showcase talents and abilities. In general, the cluster is good for many schools'. (21)

3.9 Qualitative Method: Interview and Documentary Analysis

3.9.1 Data Collection

Interview Sample

The objective of the interviews was to gather more in-depth data from a small sample of heads of department who took part in the survey, as part of the triangulation process described in Section 3.5 (see pp.158-161). To guide the selection of the sample of heads of department, a set of criteria was drawn up. The criteria required that participants should come from different departments and different schools as far as possible; differ in years of experience in their role; are available and willing to participate; and are able to get their principals' approval. Based on the criteria set, the researcher spoke personally to potential participants at various cluster meetings, and essentially presented a verbal 'cover letter' informing them of the purpose of the interviews and pledging confidentiality with regards to the interview and reporting of their responses. Over a period of a month in September 2001, after the analysis of the survey data, the researcher met up with various heads of department at cluster meetings and managed to find 8 heads of department who felt comfortable about being interviewed and who satisfied the criteria. This represented 8.1% of the respondents to the survey. The heads of department were from 6 schools and led departments ranging from English, Mathematics, Science, Humanities, PE, Pupil Welfare and IT. The interviews of heads of department were conducted between October 2001 and December 2001.

Interview Setting

Every effort was made to establish rapport with the respondents at the interview sessions. The interviews were arranged in the respondent's own school for the convenience of the participants, although those who did not mind were interviewed in the researcher's school, so as to ensure that the interviews were conducted in as warm and friendly an atmosphere as possible and resemble 'those in which people naturally talk to each other about important things. The interview is relaxed and conversational...' (Taylor and Bogdan, 1998, p. 99). At the start of the interview session, the interviewer briefed the respondents about the nature and purpose of the interview and impressed on them that participation was entirely voluntary and that they were assured of confidentiality of the interview and in the reporting of the findings. The interviewer was mindful of being non-judgemental and attentive, and to be sensitive, particularly with words and gestures which could affect the interviewees as it was important to 'establish trust and rapport with respondents' (Gall *et al*,2003, p. 246) if respondents were expected by be frank when interviewed. The interview had a focused element which was to verify and/or probe more deeply into the survey findings on the role of heads of department, hence respondents' confirmation/clarification of the findings were sought. Note taking was used to record verbatim of all the responses as its main advantage is that 'the information is readily accessible' (Gall *et al*, 2003, p. 248). However the disadvantage of note taking is that it can disrupt communication between interviewer and respondents. During the interview sessions, care was taken to withhold note taking when a point of discussion was felt to be sensitive to the interviewee. The decision not to utilise the tape recorder was taken, although admittedly, it would have speeded up the interview process and provided a complete verbal record, as it was felt that the use of the tape recorder

could cause the interviewees to be less free with their responses and also the interviewees preferred not to be recorded. On average each interview session was about an hour long.

As qualitative researchers have to 'observe and interact with the subjects of their research' (Vulliamy, 1990, p. 8), interpretative research is expected to contain the 'biases, values and judgement of the researcher' (Creswell, 1994, p.147). In qualitative research 'there is no value-free or bias-free design' (Janesick, 1994, p.212), unlike quantitative research where steps can be taken to prevent bias arising from the interviewers, the respondents and the substantive content of the questions (Cohen & Manion, 1994). Thus, although interviewers are inclined to credit meanings made at the interviews as arising from the respondents' opinions, it is as much the result of the respondents' interaction with the interviewer. Thus the need for interviewers to minimise the distortion arising from their role (Seidman, 1998). Furthermore, as researchers tend to select topics that engage their interest and their passion, the 'process of listening and careful exploration that is crucial in an interviewing study' (Seidman, 1998, p. 26) becomes even more important.

As the success of an interview rests on the researcher, researchers must have 'the level of skill appropriate for human instruments' (Hoepfl, 1997, p. 50); they need 'an awareness of the subtleties of meaning of data (i.e.) able to give meaning to data and the capacity to separate the pertinent from that which isn't' (Strauss and Corbin, 1990, p. 42) and 'be willing to relinquish ideas that are poorly supported regardless...of the excitement they first appear to provide' (Morse et al, 2002, p. 9). Furthermore, it is appropriate for the background and the possible biases of the researcher to be declared (Creswell, 1994).

In this context, the researcher was from the education service in Singapore and at the time of the study had served 33 years in the education service in Singapore, first as a teacher in 5 secondary schools before being appointed school administrator: as vice-principal in 1 secondary school (3 years) and then as principal in 2 secondary schools (13 years). The researcher was principal of one of the cluster schools in the sample for the study. The researcher was also a member of a number of professional organisations related to education. As a school administrator, the researcher was involved in the implementation of numerous educational initiatives introduced by the Ministry of Education. In particular, the researcher was among 5 principals selected to head the secondary schools (in the north zone of Singapore) that were specially 'handpicked' for the piloting of the *School Cluster* system in 1997, one of the initiatives under the *Thinking Schools Learning Nation* (TSLN) vision for the Singapore education service. The researcher's direct involvement in implementing the educational reforms from 1997 up to 2004, the year she retired from the education service, gave her much insight into the impact of the *School Cluster* system on the role of heads of department as well as the work of school leaders in Singapore schools. Her observation was that the *School Cluster* system caused a major upheaval in the schools as 'overnight', schools had to contend with the presence of a cluster superintendent who had jurisdiction over a number of principals and their schools, as well as an external environment called 'the cluster' and its attendant culture of collaboration. These changes not only saw an expansion in the scope of the principals' work, (which the researcher could vouch for), but apparently the changes also enlarged the role of heads of department, as middle managers and senior management alike and even teachers and non-teaching staff to a lesser degree, had to tackle the changes head on. It was this observation that motivated the researcher to undertake the study and was the basis for the selection and design of the

instruments, as well as the analysis and interpretation of the data.

Interview Schedule

An interview schedule comprising a set of semi-structured questions was developed to provide direction for the interview and to ensure 'the content focuses on the crucial issues of the study' (Burns, 2000, p. 424). As the purpose of the interviews was to verify and/or probe more deeply into the survey findings regarding the role of heads of department, the interview questions were based on the findings of the questionnaire survey (see Appendix 7: Interview Schedule). The interview schedule had three main sections based on the themes in the conceptual framework (see Figure 9, p.138) and the questions were based on the findings of the survey (see Chapter 4). Examples of sections and questions in the interview schedule are shown in Table 8 below.

The semi-structured interview was selected for its flexibility compared to the fixed questions of the structured interview, as it allowed the interviewer fairly free rein across the range of questions. Its open-form questions enabled the interviewer to start with a similar question for all interviewees, but follow with different probing questions depending on how they answered with the result that data gathered could be of greater depth (Gall *et al*, 2003). More time spent with the informants could mean increased rapport '...directed towards understanding informants' perspectives on their lives, experiences or situations as expressed in their own words' (Taylor and Bogdan, 1984, p. 77) and more valid responses from the interviewee's interpretation of reality (Burns, 2000).

Table 8: Examples of Sections and Questions in Interview Schedule

Work Culture

1. The research findings showed that heads of department perceive that there is a collegial work culture in their schools.

   a) What is your view and why?

   b) What do you think is your role?

   c) Do you think that your principal supports heads of department in carrying out their role?

   d) What evidence is there of teamwork in your department

   e) What do you think are the expectations about your role as head of department?

2. The research findings show that heads of department indicate that there is a collegial work culture at cluster level.

   a) What do you do at cluster level?

   b) What do you think is being done at cluster level to support heads of department in carrying out their role?

   c) What are the benefits of being in the cluster in relation to your role?

   d) In what way/s do you think the cluster superintendent influences the role of heads of department?

Role Tensions

3. The research findings show that heads of department perceive that there are a number of constraints which prevent them from performing their role effectively?

   a) Do you think that you have a clear picture of your role?

   b) What do you think you devote most of your time to? Why?

   c) Heads of department indicated that there were some negative impact of the cluster on their role such as increased workload, increased stress and lack of time to complete all tasks. What are your comments on the findings?

   d) Do you take part in cluster activities? What are these activities?

Training & Professional Development

4. The research findings showed that generally heads of department perceived that the training and professional development is inadequate?

   a) What training and professional development opportunities were you given as head o department of a cluster school?

   b) Do you think the cluster has enhanced your competence as a head of department and in what ways?

Others

   a) What are the advantages of being in a school cluster?

   b) What are the disadvantages of being in a school cluster?

Because of its advantages, the semi-structured interview has enjoyed popularity in research studies such as, the ESRC funded project in 1997 (Turner 2000) on the methods used to improve the quality of teaching and learning in secondary schools in Wales, and Brown *et al's* (1999) study which investigated participation in whole-school decision-making in schools in the northwest of England. However, as with other instruments, there are disadvantages with interviews, the major difficulty being, the comparability of the information between informants, and problems associated with response coding (Burns, 2000). In the study, the interview data were cross-checked against data from other sources namely the survey and analysis of documents (see p. 167). Where available, documents form a good source for the triangulation process "to seek concordance" (Heyrman & Goedhuys, 2005, p. 3). As for response coding, the interview data were analysed through the process of content analysis and data reduction (see data analysis below).

Documentary Analysis

The documents selected for analysis were appropriate official documents as well as selected minutes of meetings of school executive/management committees, subject departments, cluster board, and subject/support groups such as Humanities, Mathematics, and Science, in the school cluster. The subject groups or support groups comprised heads of department of the schools in the cluster and each group was chaired by a Principal or in some instances by a Vice-Principal. In the analysis of the minutes of meetings of subject/support groups, a comparative approach was adopted to study the main themes that emerged from the subject groups' minutes of meetings in order to get a more comprehensive picture of what heads of department of a school cluster actually did in their

role. Ministry of Education documents and minutes of meetings were selected for the documentary analysis as they were primary sources of documents. Like other printed or written data, they already exist independently of the researcher (Cortazzi, 2002). As such, these documents possess qualities such as originality and characteristics of 'eyewitness accounts...' (Best & Kahn, 1998, p. 85) as the 'data has been recorded by an actual witness' (Lehmann and Mehrens, 1971, p. 24).

An advantage of documentary analysis is its unobtrusiveness as a method of research (Johnson, 1994). There was relative convenience of accessing the documents systematically filed in the schools. The researcher was able to conveniently bring together documents from various sources for example, appropriate Ministry of Education documents to piece together a picture of what heads of department do in cluster secondary schools. This being an 'unobtrusive' method of research also enabled the documentary research to delve into the past events/issues of the subject groups for example, without requiring the heads of department to be present. It also allowed previously unrelated materials which have limited circulation such as minutes of minutes to add to knowledge about the topic under study, which in this case, is the role of heads of department. However the documentary analysis approach is not without its disadvantages and these have been discussed in the section under validity and reliability issues (see pp.171-172).

3.9.2 Data Analysis: Interview Data

Coding and Content Analysis

A category-coding procedure or 'content classification system' (Gall et al, 2003, p.280) was also used to categorise the interview data. The coding system was similar to the one used for the analysis of the open response survey data (see pp. 193-196) as it retained the main categories: 'work culture', 'role tensions' and 'training and professional development' but included more sub-categories. This was because the open response data was data related to only item 26 of the questionnaire which asked 'In what ways has the cluster affected the HOD's role?' and therefore was focused on the external cluster impact on the role of heads of department whereas the interview data covered all aspects of the study that is, both the internal context as well as the external context. The additional sub-categories were based on the factors in the conceptual framework in Figure 10 (see p.142).

In the first category 'work culture', the sub-categories were external influence (includes cluster/cluster superintendent); internal influence of principal (includes support); work relationships (includes collaboration, networking, teamwork, shared culture, professional sharing/exchange of ideas, resources); and role functions (includes scope of role, role expectations, cluster responsibilities). In the second category 'Role Tensions' the sub-categories were role strain (includes time, workload, role overload); role ambiguity (includes role definition); role conflict (includes expectations); and pressure and stress. In the third category 'Training and Professional Development' the sub-categories were competence, formal training (includes courses, workshops, seminars); informal training

(includes learning on the job, collegial collaboration, professional sharing, leadership exposure). Similar to the coding system for analysis of open response data, a fourth category 'others' was included for all other data which did not fall into the three broad categories mentioned above.

The coding process was similar to that used for the open-response data (see pp. 193-196). The researcher and her assistant (ex student of the researcher's school - see p. 195) read all the interview transcripts in turn, analysed the content and then coded the transcripts using the category system above with the aid of a computer. This analysis process took several rounds by the researcher and her assistant until all data were deemed to be appropriately categorised. To differentiate each interviewee's responses, each of them was assigned a code which contained two alphabets HS and two numbers. H and S denoted head of department and school respectively, while the number differentiated the interviewee and the interviewee's school. Thus H1 and H2 denoted first head of department and second head of department respectively; while S1, S2, S3, S4, S5, S6 represented six different schools. To illustrate, H1S1 meant first head of department from school 1, while H2S1 meant second head of department from school 1, and H1S2 meant first head of department from school 2 and so on. The codes of the other respondents in the interviews were H2S2, H1S3, H1S4, H1S5, and H1S6. The final stage was the interpretation of the results which are presented in Chapter 4. Table 9 and Table 10 below show examples of coding transcripts corresponding to the categories/sub-categories for the interview data (see Chapter 4).

Table 9: Examples of Coding Transcripts for Interview Data (part 1)

Categories/sub categories	Examples of coding transcripts
Work Culture External influence (includes cluster/cluster superintendent	)'Yes, collaboration and intra-cluster relationships are enhanced'. (H1S2).)'Cluster finance for training of heads of department, teacher mentors and their pupils in research projects'. (H2S2)) 'I now have a bigger role; I have to work with other principals and vice-principals e.g. organizing Science conference for pupils'. (H1S5)) 'The pool of resources grows bigger and results in benefits for pupils'. (H1S6)) 'I am more aware of expectations of the role through benchmarking of work with heads of department who shared a lot about how they run their departments'. (H2S1)) '...you need to work on inter-departmental basis and multi-task in the cluster'. (H1S2)) 'Cluster resulted in increased workload'. (H1S1)
Internal influence of principal (includes support)	) 'Finance for IPW and enrichment is always given'. (H1S5)) 'Proposals for staff and deployment are always considered and approved'. (H1S3)
Work relationships (includes collaboration, networking, teamwork, shared culture, professional sharing/exchange of ideas, resources);	) 'There is collegiality – from department members and non teaching staff especially school attendants'. (H1S1)) 'My team is cooperative, we share the same vision and work in partnership - they move ahead together with me'. (H2S1)) 'Quite collegial relationship within school... You have support most of the time e.g. coordination with other heads of department...'. (H1S6)) 'There is support from others and vice-versa'. (H2S2)) 'Cluster has facilitated sharing for heads of department of different schools'. (H1S3)) 'Sharing of resources, exchange of preliminary "O" papers'. (H1S2)
Role functions (includes scope of role, role expectations, departmental role, whole-school role, cluster role,	) 'The role is bigger than the department. Now the head of department's scope is school-wide. Four to five years' back, the role was more departmental. Now you need to work on inter-departmental basis and multi-task in the cluster'. (H1S2)) 'The role is managing of department and developing people'. (H1S6)) 'HODs contribute in administration, school policy and school plans'. (H1S6)) 'I now oversee a bigger area at cluster level'. (H1S2)) 'We work as a team in the SEC'. (H1S1)) 'As we are given a role to play in the cluster, have to work with other heads of department to come up with creative ideas'. (H1S4)

Table 10: Examples of Coding Transcripts for Interview Data (part 2)

Categories/sub categories	Examples of coding transcripts
Role Tensions Role strain (includes time constraint, workload, role overload)	) 'I'm sometimes short of time to complete all tasks'. (H1S6)) 'Too many cluster activities – they take focus away from school therefore robbing you of your precious time'. (H1S1)) 'At times administration bogs down the head of department...'.(H2S1)) 'I don't really have the time to build relationships...'. (H1S1)
Role ambiguity (includes job description, role definition)	) 'The job description does not give specific details on what to do'. (H2S1)) 'There is lack of clarity...especially in the IT area...'.(H1S4)) 'Other things are not clear like the extra administration...'. (H2S2)
Role conflict (includes expectations)	) 'Expectations are also set by the principal and the vice-principal. In addition there are expectations from the cluster superintendent'. (H1S3)) 'Teachers look up to you and you have to be effective...'.(H1S2)) 'I did not expect the administration to be so much...'. (H1S4)
Role satisfaction (includes commitment to role)	) 'Teaching demands so much more in terms of expectations, But it's not a life and death situation – you need to prioritise which should go first'. (H1S1)) 'The role sits my personality...I enjoy it'. (H1S5)) 'I'm one of the longest serving HODs – 6 years! .I have taken it positively'...(H1S3)
Pressure and stress	) 'The workload is more than what it was 10 years ago; on a scale of 1 to 10, 10 years ago the workload was 2 now it is 8 out of 10. Sometimes you wonder how to cope with it'. (H1S5)) 'Expectations of parents have become very demanding'. (H1S3)) 'People in my home feel the stress for me s they worry that I don't have time for the family'. (H1S5)
Training & professional development Competence	) 'From teacher to HOD is a big jump as you are handling adults and because there is no real training given for the leadership role, the gap is not bridged'. (H1S1)) 'I was thrown into the job and was not confident of how to deliver'. (H1S4)) 'Competence level risen because of cluster activities'. (H1S2)
'Formal' training (includes courses, workshops, seminars)	) 'The core modules of the course are very theoretical compared to the electives'. (H1S6)) 'There was cluster training for heads of department like appraisal, project management skills, use of high end equipment in science, and research skills to help pupils do research'. (H1S2)
'Informal' training (includes learning on the job, collegial collaboration & learning from professional sharing, leadership exposure)	) 'On the job training is more relevant. Working with other heads of department in joint activities like planning, overseeing a bigger area or group helps raise competency'. (H1S3)) 'By learning from very experienced heads of department in their fields, newer heads of department gain confidence'. (H1S4)) 'Collaboration is beneficial as sharing of how schools are run broadens our perspective of the role'. (H1S3)) 'I have become more confident as I am able to network with other heads of department'. (H1S5)

3.10 Limitations

1. The study adopted a multi-strategy research methodology or mixed method to collect data using a survey questionnaire followed by interviews, but without the two being linked. The interviewees were selected by convenience and not on the basis of results and analysis from the survey which therefore implies issues of trustworthiness of the interview. As has been discussed in the section 3.6: 'Validity and Reliability Issues' (see pp.163-172), 'without rigour, research is useless...hence...the attention to reliability and validity' (Morse et al, 2002, p.1). However, reliability and validity which are well established concepts in quantitative research, are inappropriate to qualitative research which needs to be addressed from the perspective of the paradigm in which the study is carried out (Merriam, 2005), and which allows the researcher to stay close to the empirical world so as to 'ensure a close fit between the data and what people actually say and do' (Taylor & Bogdan, 1998, p.9). Hence for qualitative research, parallel or quasi-foundational criteria also termed as trustworthiness (Guba & Lincoln, 1989) such as credibility, transferability, dependability and confirmability have been suggested. In qualitative studies, 'trustworthiness of a research report lies at the heart of issues conventionally discussed as validity and reliability' (Golafshani, 2003, p. 601). For the study, the researcher took steps to achieve trustworthiness of the interview by adopting the following suggested strategies for discerning trustworthiness and they include: i) triangulation of different sources of data whereby the interview findings were validated against corroborating evidence in two other sources of data, firstly, the survey data, and secondly, data from official documents (see pp.167-168); ii) member check which entailed returning interview transcripts to respondents who were asked to verify and comment on their accuracy (see p.168); and iii)

a statement on the researcher's experience and biases explicitly stated (see pp. 200-201) to help readers understand her assumptions and biases, in contributing to the interpretation of the data (see section on 'trustworthiness pp. 165-168).

2. The research involved only the heads of department of the secondary schools in the selected school cluster and hence much of the findings were based on how these heads of department interpreted their role in context according to their experiences and also their perceptions of how their colleagues felt about the role. In hindsight, insight into the role of the heads of department could have been enhanced by soliciting alternative viewpoints from significant others working in the schools, for example, school leaders like the principal and/or the vice- principal. However this deficiency in sources of data was balanced to some extent by documentary analysis which helped in the verification of findings where applicable.

3. The questionnaire survey was carried out between the end of November 2000 and beginning of December 2000, which corresponded with the end of a school year and respondents were given up to the end of the year to return the questionnaires by post. The onset of the school holidays (December) could be a possible reason for the non-return of some the questionnaires and the survey return rate of 75.0%. Although ideally, a bigger sample size with more heads of department would have been preferred as it was recognised that a larger sample could result in more views, the research findings could still be generalised to the secondary school cluster population in Singapore with sufficient confidence as explained in the next section.

3.11 Generalisability of Findings

As the study adopted a multi-strategy research methodology or mixed method to collect data using survey, interview and documentary analysis (see pp. 153 & 158), the generalisability of the findings would be discussed in relation to firstly, measures taken to ensure validity and reliability for the survey, secondly, how trustworthiness and consistency of interview data were achieved and thirdly, what was done to ensure validity and reliability for data from documents.

As discussed in Section 3.6: 'Validity and Reliability Issues' (see pp.168-170), generalisability implies the extrapolation from a sample to a population; it relates to whether the conclusions of a study have any larger import (Miles and Huberman, 1994); and whether the conclusions are transferable to other contexts (Lincoln & Guba, 1985). In quantitative studies, reliability is seen in the replicability of a study's findings. However, in qualitative studies, reliability is a problematic issue as qualitative researchers seek to 'understand the world from the perspective of those around it' (Merriam, 2005 p. 4) and it is likely that replication of a qualitative research will not produce the same results. Thus it is not feasible to set a benchmark for repeated measures to establish reliability in the conventional way (Merriam, 2005).

For the study on the role of heads of department in Singapore, reliability tests were conducted for the quantitative data of the pilot study as well as the main study using a test of internal reliability to determine whether the questionnaire was stable or consistent in measuring the concept of role. The reliability of the questionnaire was measured by the

alpha coefficient to examine its internal consistency using the Cronbach's alpha, a commonly used test of internal reliability, and an estimate based on item inter-correlations and item variances. Generally, an alpha coefficient of 0.80 is viewed as an acceptable level of internal reliability although lower alpha coefficients have been accepted in some instances (Bryman, 2001). In the study, overall Cronbach alpha coefficients of 0.86 and 0.81 for the questionnaire employed, were obtained for the pilot study and the main study respectively (see pp.177 & 193) suggesting that the questionnaire is unidimensional and consistent. To ensure that validity was not compromised in the Singapore study, the survey data was compared with findings from other sources such as: interviews; checking of documents; and cross-checking findings with the pilot study.

For the interview however, the concept of external validity is problematic (see Section 3.6.2: pp.165-171). As reliability is a problematic issue in qualitative research, and it is not feasible to set a benchmark for repeated measures to establish reliability in the conventional way (Merriam, 2005), dependability or consistency in place of reliability has been suggested (Guba & Lincoln, 1989). The objective is on whether the results 'are consistent with the data collected' (Merriam, 2005 p.4) and not replicability of the results to other studies. In qualitative research several strategies have been suggested to help readers of qualitative reports determine the generalisibility of findings to their particular situation/s and these are: triangulation, peer examination and audit trail. All of these strategies were used by the researcher to increase the generalisibility of the interview findings to other particular situation/s. First, in triangulation (also used to achieve trustworthiness) (see pp.167-168), the interview findings were validated against corroborating evidence in two other sources of data namely, the survey data, and the data

from official documents. The triangulation using multiple data sources (quantitative as well as qualitative data) showed that there was convergence of findings thereby affirming consistencies among the different findings as illustrated in Chapter 4. Second, peer examination involved verification of findings by two heads of department and a vice-principal from different secondary schools who provided comments which were positive and supported the interview findings presented in Chapter Four. Third, for the audit trail, the researcher left a clear trail by documentation of the events throughout the interview for interested others to track (see pp. 168-171).

In addition the study took steps to achieve trustworthiness of the interview to strengthen the 'reliability and validity' of the research. As explained in section 3.10: Limitations (see pp. 209-210) and in Section 3.6.2 (see pp. 166-168) the researcher adopted the following suggested strategies for discerning trustworthiness: i) triangulation of different sources of data whereby the interview findings were validated against corroborating evidence in two other sources of data, firstly, the survey data, and secondly, data from official documents. The triangulation using multiple data sources (quantitative as well as qualitative data) showed that there was convergence of findings thereby affirming consistencies among the different findings (see pp.167-168); ii) member check which entailed returning interview transcripts to respondents who were asked to verify and comment on their accuracy (see p.168); and iii) a statement on the researcher's experience and biases explicitly stated (see pp. 200-201) to help readers understand her assumptions and biases, in contributing to the interpretation of the data (see section on 'trustworthiness pp. 165-168).

For documentary analysis the question of reliability is less problematic since for some documents such as minutes of meetings 'the data are in permanent form and hence can be subject to re-analysis, allowing reliability checks and replication studies' (Robson, 1994, p.243). However, for documentary analysis the validity issue arises from its weaknesses - the documents may not be prepared specifically for research as in a questionnaire (Cortazzi, 2002; Johnson, 1994). Johnson, (1994) asserts that a document 'already exists in a definitive form' (p. 58) and 'the research purpose may be different from the purposes behind the original document' (p. 202). Hence for the study, triangulation was used as a means of cross-checking documentary data with interview and survey data to establish its validity. As Robson (1994) points out, 'the documents have been written for some purpose other than for the research, and it is difficult or impossible to allow for the biases or distortions that this introduces...[There is a] need for triangulation with other accounts [and] data sources to address this problem' (p. 243) (see Section 3.6.3, pp. 171-172).

Based on all the measures taken as described above, the study is confident that the findings might be transferred to other clusters in Singapore since their situations are similar if not identical, to the one studied. As explained in the sampling section above (see p. 181), the selected cluster sample comprised a mix of schools in terms of age, size and type of school (e.g. neighbourhood, autonomous etc) and similar to other clusters, it had government schools and government-aided schools and the majority of the schools were neighbourhood schools. As such the sample cluster of secondary schools could be considered reasonably representative of the secondary schools in Singapore. The rationale for this is that in Singapore, schools are spread out all over the island state and there is a good mix of government schools and government-aided schools. Zoning of schools is done

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geographically and not because of distinguishing factors such as socio-economic background or quality of schools and every zone has its fair share of primary schools, secondary schools and junior colleges with the majority being neighbourhood schools. Therefore any school in one zone would be representative of any other school in any other zone. However given the specific context of Singapore, caution would be required in generalising the findings of this study to other different contexts.

3.12 Conclusion

This chapter has described the process of selecting from among a range of research techniques available, an appropriate research design for the study on the role of heads of department in cluster secondary schools. In view of their complementarity in enhancing validity, the study has combined the quantitative approach with the qualitative approach to assist triangulation, as employing both quantitative as well as qualitative techniques such as the survey, interview and documentary analysis in the collection of data would allow for a more balanced contribution of information from different sources to supplement, complement and verify data from each source. Methodological issues such as validity and reliability, and trustworthiness have been addressed to ensure that the authenticity of the research findings was not compromised. The pilot study was particularly necessary as the study had no major research precedents in the Singapore context. To a large extent, the final phase of the study was improved as the result of the procedures taken. Also addressed were the likely ethical issues to be experienced in the conduct of the study providing the research with a greater awareness and fuller understanding of the ethical dilemmas and moral issues involved in the research process and how to resolve them. The

chapter also described the administration of the main study and the characteristics of the sample. Attention was also focused on the method of data reduction through deriving scales and subscales for the variables/factors related to the different aspects of role. Such scales were derived empirically through factor analysis. The reliability of the scales was checked and found to be satisfactory. The procedures of data analysis using content analysis for qualitative data were also described. The procedures taken in this chapter are summarised in Figure 13. The findings of the study are presented in the next chapter where the development of statistical analysis and interpretation pertinent to the research themes would be explained. This would entail employing the triangulation process in the comparison of the findings from the survey, interview and documentary analysis to find answers to the research questions. These are elaborated on in the findings in chapter 4.

Figure 13: Methodology Procedures
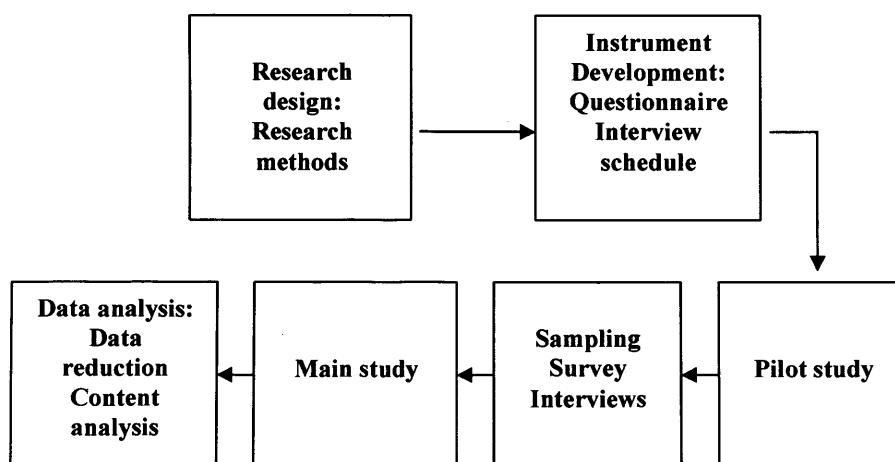
CHAPTER 4: FINDINGS

4.1 Introduction

This study on the role of heads of department in secondary schools of a school cluster in Singapore is carried out on the premise that existing research concepts can be applied to the Singapore context. This is because the literature particularly of empirical research in UK shows that similarities exist in the UK education context and the Singapore context. The heads of department in the two contexts play a key role in school improvement and are 'the driving force... and ... the key to improving the quality of the learning process' (Earley and Fletcher-Campbell, 1989, p. 215). Both contexts have been bombarded with a host of educational changes in recent years. Heads of department in the UK have experienced a 'plethora of macro, meso and micro policy swings and shifts' (Brown *et al*, 2000, p. 237) aimed at raising standards and school effectiveness. In the Singapore schools, reforms such as the *Thinking Schools and Learning Nation* (TSLN) initiatives and the drive to be world class, have made the role of heads of department more challenging than in the past as external policies put pressure on heads of department to cope with the continual changes. However owing to the unique features of the Singapore education system, the above premise has been found untenable. A significant difference in the Singapore education context compared to other educational contexts is the management of schools by clusters (see Chapter 1, pp. 16-20) which has created a whole new work culture for managing schools and impacted significantly how schools operate and their relationships with each other. The findings of the study presented in this

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chapter will show why this is so. The findings will also address the research questions

posed in Chapter 2 (pp. 147-148) and reproduced below.

The research design combines both the quantitative and qualitative approaches and uses

three different methods to collect data, namely, a questionnaire survey, semi-structured

interviews and documentary analysis of official documents and minutes of meeting (see

Chapter 3, pp. 153 & 158-159). Both quantitative as well as qualitative data from all

three sources of data collection are used in the triangulation process. The assumption is

that outside the questionnaire, interviewees' views and non-quantifiable understandings

and experiences are meaningful properties of the social reality in schools that this study

sets out to investigate. Three broad themes or variables namely: 'work culture', 'role

tensions', and 'training and professional development' are incorporated in the conceptual

framework (see pp. 138 & 142). They are derived from the theoretical and empirical

literature on role of heads of department as well as literature on whole-school reform.

These themes form the main threads of discussion in the study.

Quantitative data (items1-25) from the questionnaire survey are subjected to scoring and

data reduction through factor analysis to identify subscales or factors. Seven subscales or

factors (F1-F7) are identified and labelled accordingly as: management attributes (F1);

competence (F2); workload (F3); expectations (F4); satisfaction (F5); role definition

(F6); and commitment (F7) respectively (see Table 5, p. 191). Qualitative data namely,

the open responses from the questionnaire survey and interview data, are coded and

subjected to content analysis to categorise data according to three broad categories

corresponding to the themes of 'work culture', 'role tensions', and 'training and

professional development'. For the purpose of analysis, subscales/factors (F1-F7) are subsumed under the broad themes of 'work culture', 'role tensions', and 'training and professional development' as follows:

- Work Culture: (F1)

- Role Tensions: (F3, F4, F5, F6, F7);

- Training and Professional Development: (F2).

Findings from the analysis of official documents and minutes of meeting are matched against data gathered from the other two sources (survey and interview) to complete the triangulation process. The statistics used for data analysis are frequency, percentages, means and factor analysis, and findings are presented graphically in tables and diagrams.

The theme 'work culture' is analysed in terms of i) external influence of the cluster/cluster superintendent; ii) internal influence of the school principal; iii) work relationships; and iv) the roles performed by heads of department. The findings on 'work culture' will provide answers to the following research question and sub-questions:

1. What is the nature of the work culture in cluster secondary schools?

   a) What is the influence of the cluster/cluster superintendent on the work culture?

   b) What is the influence of the principal on the work culture?

   c) To what extent is there a collegial work environment?

   d) What are the roles that heads of department in cluster secondary schools perform?

For i) and ii) the focus is on how the way the cluster superintendent manages the school cluster and how the principal manages the school respectively, affect the work that heads of department do. The related research questions are 1a and 1b.

For iii) 'work relationships', the focus is on whether there is collegiality in the work environment. For the purpose of the study, 'collegiality' is taken to mean a situation where colleagues voluntarily 'work together' or 'interact' with each other in various forms of interactions such as teamwork, shared decision-making and collegial collaboration (see p. 143). The related research question is 1c.

For iv) 'role functions', the focus is on the generic role of heads of department with regard to their duties and responsibilities and different levels of role. The related research question is 1d.

'Role Tensions' is defined in terms of: i) role strain; ii) role ambiguity; iii) role conflict (see p.144). Based on role theory and also supported by empirical studies, it is assumed that inadequate time and heavy workload issues result in role overload while conflicting role expectations lead to role conflict and a lack of clear role definition to role ambiguity. These different aspects of role tensions result in role strain which exerts iv) pressure and stress that impact the extent heads of department are able to manage their role. This is assessed by looking at v) satisfaction with the role; and vi) commitment to staying in the role. The relevant research questions are:

3. Are heads of department in cluster secondary schools able to cope with all their tasks?

   a) To what extent do heads of department experience role strain?

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b) To what extent do heads of department experience role ambiguity?

c) To what extent do heads of department experience role conflict?

d) To what extent are heads of department satisfied with their role?

e) To what extent are heads of department committed to staying in their role?

'Training and professional development' is defined in terms of: i) the extent that heads of department are competent in performing their role; ii) formal training; and iii) informal training. (see p.145). The assumption made here is that adequate training and professional development will enhance iv) competence of heads of department in carrying out role. The focus is on the training and professional development provided for heads of department by the Ministry of Education and the cluster. The research question/sub-questions are:

4. Are the training and professional development needs of heads of department in cluster secondary schools met?

   a) To what extent are heads of department competent in carrying out their role?

   b) To what extent is there formal training for heads of department?

   c) What part does informal training play in the professional development of heads of department?

The findings will also provide answers to the following research question:

2. What is the nature of the heads of department's roles in cluster secondary schools?

   a) What are the key factors that influence what heads of department do?

The findings thematically organised according to the themes: 'work culture', 'role tensions' and 'training and professional development' are presented in the following sections 4.2, 4.3 and 4.4 respectively.

4.2 Work Culture

4.2.1 External Influence of the Cluster/Cluster Superintendent

The findings reveal that the cluster/cluster superintendent influences the work culture in four major areas namely:

i) Work relationships with the introduction of a culture of collaboration at cluster level;

ii) Role functions with the expansion of the scope and responsibilities of the heads of department's role;

iii) Resources with the provision of funding and other resources;

iv) Capacity building of heads of department with the provision of training and professional development of heads of department.

i) The introduction of a culture of collaboration at cluster level impacted the work relationship among heads of department as well as school leaders of the cluster schools. The survey open response data show that 16.2% of heads of department (See Table 11, p.223) indicate that collaboration among cluster heads of department (as well as with school leaders) resulted in improved work relationships. The collaboration includes participation in cluster initiatives/activities such as subject support groups and cluster sub-committees, professional sharing and pooling of resources (see Table 21, p. 238).

The 'increased working relations with HODs from other schools...' (20) result in

'...support from fellow peers...You're not alone in this position and situation' (93), and

'..."support group" for the teachers' (20); and '...more interaction and collaboration

with other leaders in the cluster...' (86) give them 'exposure to better practices,

facilities, ideas etc' (93) and 'comparisons and benchmarking are feasible as there are

sharings and meetings of HODs from the same cluster' (71) (see Table 21 p. 238). The

result is collegial work relationships being forged amongst heads of department. As one

head of department states 'being in the cluster HODs are able to work and collaborate

with HODs in other schools' (69), while another elaborates that 'it improved relationship

amongst teachers in the cluster' (44). Collegial interactions extend also to school leaders

as there are opportunities for heads of department to '...interact with other Principals and

Vice-Principals...' (75) (see Table 20, p. 237).

Table 11: Effect of Cluster on Role of HODs by Categories
(Survey Open Response Data) (N=99)

Major categories of cluster effects*	% HODs
Benefits of sharing and learning	82.8
Increased workload and responsibilities	41.4
Increased professional development through collaboration, training and leadership exposure	36.4
Pressure and stress	24.2
Time constraint	22.2
Improved work relationships through collaboration	16.2
Provided wider perspective of role	7.0
Provided resources	6.1

* categories with less than 5% are not tabled

The impact of the culture of collaboration at cluster level appears to be 'synergetic' as can be seen from a head of department's comment:

> 'The cluster offers synergy for cluster dynamics. Above all, the
>
> cluster superintendent did well as a trailblazer for the progress of the
>
> N1 cluster!! Do thank her!' (60)

Interview data confirm the survey findings. All the heads of department interviewed confirm that the work relationship is collaborative at cluster level and that as a result of collaboration '...intra-cluster relationships are enhanced' (H1S2). The heads of department also confirm that cluster collaboration not only involves working with their cluster peers but also '...with other principals and vice- principals...' (H1S5) (see Table 12) below.

Table 12: Cluster Collaboration (Interview Data)

Excerpts of interviewees comments
'Yes, collaboration and intra-cluster relationships are enhanced'. (H1S2)
'I now have a bigger role; I have to work with other principals and vice-principals e.g. organizing Science conference for pupils'. (H1S5)

ii) A second major area impacted by the cluster/cluster superintendent is the role functions of heads of department. Survey open response data show that 41.4% of heads of department indicate that the cluster added more responsibilities and increased their workload (see Table 11, p. 223). They say that "with the introduction of the cluster, it widened the scope and expectations of a HOD/leader' (85), '...added responsibility and widened our spectrum of duties' (9) and the 'HOD's role is greatly enlarged' (30) (see

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Table 13). They also share that 'cluster has also made the role of HODs more challenging...' (69) (see Table 34, p.257).

Table 13: Expansion of HOD Role (Survey Open Response Data)

Selected responses of heads of department
'With the introduction of the cluster, it widened the scope and expectations as a HOD/leader'. (85)
'The Cluster Programme/Training have added responsibility and widened our spectrum of duties'. (9)
'HOD's role is greatly enlarged'. (30)
'I'm an HOD not only in my school but also to plan activities with the cluster'. (65)

Survey open response findings show that the heads of department's role has expanded because of cluster collaboration. Heads of department find that they now have to '... participate in cluster activities and attend meetings (29), '...work with HODs in the same cluster and share ideas' (85), '... lead/work in groups beyond my school' (74), be '...in charge of sub-committees...' (44), in addition to '...planning activities for pupils in the cluster' (12) like '...cluster competition, games and camps' (90) (see Table 30, p. 253).

Interview data support the finding that cluster has enlarged the scope of the heads of department's role. All the heads of department interviewed agree that the cluster has meant more responsibilities for them. They say that 'cluster resulted in increased workload' (H1S1); they now '...need to work on inter-departmental basis and multi-task in the cluster' (H1S2). One head of department says: 'as we are given a role to play in the cluster; have to work with other heads of department to come up with creative ideas.' (H1S4) (see Table 34, p. 257).

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iii) A third area where the impact of the cluster/cluster superintendent is seen is in building capacity of heads of department (and their school leaders) to enhance their leadership capability and role competence. 36.4% of heads of department indicate in the open response section (see Table 11, p.223) that the cluster has impacted their professional development by providing 'greater opportunities to be trained and developed' (94) '...in the MOE's new initiatives through workshops/courses organized by the cluster' (69). As one head of department comments, the cluster provides the 'necessary training I need as an HOD, for example People Management Skills, SEM writing skills, etc.' (83). Excerpts of responses of heads of department are illustrated in Table 14 ('Formal' Training column) below.

The cluster also impacts the professional development of heads of department 'informally' through collegial collaboration and leadership exposure as indicated by 36.4% of respondents in the open response section (see Table 11, p.223). Heads of department find that 'more interactions with other HODs provided greater learning experiences for the role of a HOD' (78), and 'sharing sessions... have provided HODs with more opportunities for insightful learning and acquisition of skills to manage departments' (51). Excerpts of their responses are shown in Table 14 ('Informal' Training columns) below.

The cluster also facilitates leadership exposure by providing a 'platform' for heads of department to demonstrate as well as hone their leadership skills. For the heads of department, cluster participation is seen as 'a good time to show their good performance'

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(95) and '...the opportunity to showcase talents and abilities' (21). In addition, cluster

gives them opportunities to work and '...interact with principals and vice-principals...'

(75) (see Table 14, 'Informal' Training: Leadership Exposure column) as well as '...to

lead/work in groups beyond my school' (74) and be '...in charge of sub-committees...'

(44) (see Table 30, p.253).

Table 14: Building Capacity of HODs - (Survey Open Response Data)
Excerpts of Responses from Heads of Department

'Formal' Training	'Informal' Training (Collegial Collaboration)	'Informal' Training (Leadership Exposure)
'It helps provide the necessary training I need as an HOD, for example People Management Skills, SEM writing skills, etc'. (83)	'More interaction with other HODs in other schools provided greater learning experiences for the role of a HOD'. (78)	'...the cluster has given my staff and I, the opportunity to showcase talents and abilities. In general, the cluster is good for many schools'. (21)
'We are also provided with training in the MOE's new initiatives through workshops/courses organized by the cluster'. (69)	'Sharing sessions...have provided HODs with more opportunities for insightful learning and acquisition of skills to manage departments'. (51)	'To be a more confident and competent person to interact with other Principals and Vice-Principals...' (75)
'Greater opportunities to be trained and developed'. (94)	'I feel that by working with the cluster schools, especially with the HODs...I...learn from them in terms of management skills'. (13)	'Also a good time to show their good performance'. (95)

Interview findings corroborate the survey findings that the cluster has impacted the

professional development of heads of department enabling them to have more insights

into their role and helping to raise their competence level. The interview data confirm

that heads of department have developed professionally through collegial collaboration

and 'competence level [has] risen because of cluster activities' (H1S2). For example,

heads of department find that 'there's more benefit than disadvantage because you work

with others and get more ideas...' (H1S1); '...more insights into your role...' (H1S6); and sharing of how schools are run broadens our perspective of the role' (H1S3). Heads of department comment that there is 'sharing by very experienced HODs in their fields to newer HODs' (H1S4) and they are able to '...learn about the systems in other schools' (H2S2); and become '...more aware of expectations of the role through benchmarking of work with heads of department...' (H2S1). As one head of department says 'I have become more confident as I am able to network with other heads of department' (H1S5). In similar vein, another comments that the 'cluster planning seminar was a good sharing session – could see the big picture' (H1S3). Emphasising the positive impact of the cluster on heads of department's professional growth, a head of department shares that 'at that time, I was not a HOD, but a person comes to surface potential when opportunities are provided for people to show potential' (H1S5) (see Table 58 - Interview column, p. 285).

iv) The fourth area where the cluster influence is evident is the provision of funding and resources. The cluster augments schools' budgets enabling special enrichment programmes to be made available to their pupils. Survey findings show that cluster funds and resources help heads of department to carry out their role more efficiently for example, '...to accomplish projects that would have been beyond the means of the school itself' (57), and 'sharing of resources - examination papers, IT lessons etc...' (75). Excerpts of survey comments on the benefits of cluster funding are shown in Table 15 (see 'Open response' column) below.

Table 15: Cluster Funding & Resources (Survey Open Response & Interview Data)
Selected Responses/Comments by Heads of Department

Open response	Interview
'The cluster provided financial resources to accomplish projects that would have been beyond the means of the school itself'. (57)	'The pool of resources grows bigger and results in benefits for pupils'. (H1S6)
'Sometimes certain things are given to schools for free because the cluster has funds to pay for them'. (21)	'Cluster finance for training of heads of department, teacher mentors and their pupils in research projects'. (H2S2)
'The cluster also makes it possible for pooling of resources...'. (63)	'Cluster funding of overseas learning trips beneficial for heads of department'. (H2S1)
'Sharing of resources – examination papers, IT lessons etc were useful'. (75)	

Interview findings also confirm that the cluster provides funding and resources for the schools. One head of department shares that with the cluster 'the pool of resources grows bigger and results in benefits for pupils' (H1S6). Although the cluster facilitates the pooling of resources and materials for the benefit of pupils, teachers are not left out as there is 'cluster finance for training of heads of department, teacher mentors and their pupils in research projects' (H2S2), as well as 'cluster funding of overseas learning trips beneficial for heads of department' (H2S1). This is illustrated by selected interview comments in Table 15 (see 'Interview' column) above.

Documentary evidence corroborates the survey findings as well as the interview findings that the cluster/cluster superintendent has influenced the work culture with the introduction of a culture of collaboration resulting in collaborative work relationships among heads of department at cluster level, expansion of the role of the heads of department as a result of cluster activities and responsibilities, professional

development of heads of department through professional sharing and resource management with the provision of cluster funding and resource sharing. From the analysis of official documents such as minutes of cluster meetings there is evidence that the meetings adopt a collegial collaborative decision-making process. For example, minutes of meetings of the Cluster Board indicate implicitly that there is collaborative decision making at the administrative level involving the cluster superintendent (as the chair) together with the principals of the cluster schools on a variety administrative matters including personnel matters such as intra-cluster transfer and performance appraisal, budgeting of cluster funds, and cluster initiatives (see Chapter 2, p. 140).

Minutes of meetings of subject support groups show that there is collegial collaboration among heads of department of the same subject/s and interests focused on improvement of teaching-learning. For example, there is collaboration in curriculum matters through professional sharing; the collaborative effort include sharing of effective teaching strategies and best practices; sharing of resources such as IT-based lesson plans and worksheets; developing question item banks and setting of common examination papers (e.g. Minutes of Meeting - Cluster Science Meeting, 1998; Minutes of Meeting - Cluster Mathematics Department, 1998). The minutes of meetings also show that schools collaborate in pooling of resources, for example in the bulk purchases of materials, such as t-shirts and bulk printing of certificates for cluster activities (Minutes of Meeting-Cluster Mathematics Department, 1998), and that there is cluster funding for collaborative activities in the form of budgets for materials, prizes, stationary and refreshment (e.g. Minutes of Science Meeting Cluster Meeting, 1998).

In summary, the external structures/initiatives that have been put in place at the cluster level such as the culture of collegial collaboration; training and professional development programmes and opportunities for heads of department to hone their leadership skills; and support in terms of financial and other resources, reflect the way the cluster superintendent impact the work culture in the schools.

4.2.2. Internal Influence of the Principal

The internal influence of the principal is reflected in the work environment and culture prevalent in the schools. The management of the schools by the principal is seen in the structures and frameworks that have been established for the day-to-day running of the school. In the schools, hierarchical structures are in place as reflected in firstly, the organisational structure which is inherently a line management structure with the heads of department occupying the third rung of the organisational structure after the vice-principal and the principal (e.g. Ministry of Education, 2000); and secondly, in the framework of committees with the School Executive Committee or School Management Committee (SEC/SMC) at the apex comprising principal, vice-principal and the heads of department and below it the departments comprising heads of department and their teachers based on subjects.

The principal's influence is also evident in determining role as reflected in the reliance on job descriptions (e.g. Ministry of Education, 2000) and other official documents such as the *School Excellence Model* or SEM (Ministry of Education, 2000) (see Chap. 2, pp. 43-46) and the recently implemented *Enhanced Performance Management System* or

EPMS (Ministry of Education, 2002) (see Chap. 2, pp. 46-50) to delineate role functions of heads of department. Heads of department are given the job description together with their letter of appointment on first assuming the role. The SEM is the reference guide for school leaders including the heads of department for the internal appraisal of schools and defines implicitly what is expected of school leaders inclusive of heads of department in achieving excellent schools, while the EPMS delineates the role functions of school leaders, middle managers as well as teachers in a comprehensive chart which provides clear descriptions of key result areas expected of each level of personnel in the education service. As such, these documents which are used as parameters for expectations of heads of department have considerable impact on the role of heads of department.

The principal's influence is also evident by the management support given. The survey findings show that the majority (85.9%) of the heads of department indicate that their principals are, to a 'considerable' or 'very great' extent approachable, and 69.7% feel that their principals understand the difficulties they face in their job (see Table 16: item 7 & 8, p. 233 respectively). The principal's impact is also evident in the provision of adequate support for work to be done. 79.8% of the heads of department indicate that their principal gives enough support and guidance to meet their goals at work, and 72.7% feel they show concern about their welfare (see Table 16: items 9 & 10, p.233 respectively). Similarly, the majority of heads of department (64.7% and 73.8% respectively) perceive school management (i.e. principal and vice-principal inclusive) to be understanding, and accessible to a 'considerable' or 'very great' extent (see Table 16: items 11 & 12 respectively). Furthermore in terms of resources such as physical

equipment and funding, more than two-thirds or 69.7% of heads of department indicate

that to a 'considerable' or 'very great' extent, they are given enough facilities/equipment

to do their job efficiently (see Table 42: item 5, p. 263).

Table 16: Management Support (Survey Data)

Item	'Very Great' / 'considerable' extent (%)
7. I feel that my principal is approachable if I need to speak to her	85.9
8. My principal understands the difficulties people like me face in our job	69.7
9. My principal gives enough support and guidance for us to meet our goal at work	79.8
10. My principal is concerned with the HODs and not only about getting the job done	72.7
11. School management understands the problems of people at my level	64.7
12. School management is accessible to people at my level	73.8

Interview data also support the survey finding that there is support from school

principals. All the respondents say that there is management support for them to do their

job for example, in areas such as 'finance for IPW and enrichment...' (H1S5) and

'...staffing and deployment...' (H1S3) (see Table 17 for excerpts of interview data).

Table 17: Management Support (Interview Data)

Excerpts of Interviewees' comments
'Finance for IPW and enrichment is always given'. (H1S5)
'Proposals for staffing and deployment are always considered and approved'. (H1S3)

4.2.3 Work Relationships

The findings on 'work relationships' show that collegial work relationship is evident at a) department, b) whole-school, and c) cluster levels.

a) Departmental level

The survey findings show that at departmental level, a culture of teamwork is evident where departmental staff work collegially in teams based on subject, and heads of department make decisions together with their teachers. The majority of heads of department (70.7%) surveyed are confident (to a considerable/very great extent) that they can depend on the support of their colleagues in response to questionnaire item 6: 'When faced with a difficulty, I can usually count on getting assistance from my colleagues' (see Table 42: item 6, p. 263).

Interview data support the survey finding of a departmental team culture in the schools. All the respondents share that they have their own departmental teams. One head elaborates that 'the team is cooperative...we share the same vision' (H1S4) while another states, 'I have an organized department and teachers are cooperative and know expectations' (H1S3). Another points out that he and his team '...work in partnership' (H2S1) and there is collegiality from departmental members and non teaching staff...' (H1S1). Examples of comments by the heads of department are shown in Table 18 below:

Table 18: Work Relationships - Departmental Level (Interview Data)

Excerpts of Interviewees' comments
'It is important to have a team as one person doing everything can be overwhelming. A closely knit team can result in synergy. My Computer Applications (CPA) team of five is clearly defined and each is clear about his/her role. The team is cooperative and moves ahead with me. We share the same vision'.   (H1S4)
'There is collegiality from department members and non teaching staff especially school attendants'. (H1S1)
'My team is cooperative and work in partnership'. (H2S1)
'I have an organized department and teachers are cooperative and know expectations'. (H1S3)

Documentary evidence (e.g. minutes of departmental subject meetings) substantiates the survey findings as well as interview data that there is a team culture or collegiality at departmental level. The minutes of meetings of departments reveal that subject departmental meetings are attended by all teachers of the respective subject/s and the sessions are chaired by the respective heads of department. These meetings usually follow a schedule planned for the whole year (e.g. Science Department Minutes of Meetings, 2000).

b) Whole school level

Findings of documentary analysis reveal that the work relationships among heads of department at whole school level are also collegial in nature. For example, the minutes of School Executive Committee (SEC) meetings show that shared decision-making is practiced at whole school level involving the school leadership/management team comprising the principal, vice-principal and heads of department (see p.231). Minutes of meeting show that the SEC meetings usually follow a planned monthly schedule and are chaired by the principal (e.g. SEC minutes of meetings, 2000).

Interview data confirm this finding. All the heads of department interviewed confirm

their whole-school role as members of their schools' SEC/SMC. They highlight that 'it is

whole-school approach...' (H2S2); they '...work as a team in the SEC' (H1S1) and 'in

the SEC there is support and coordination to avoid clashes...' (H1S5) (see Table 29, p.

252); and '... on school matters, working relationship is collegial and everyone works as

a team to get the work done' (H1S1) (see Table 19). Examples of comments by heads of

department are shown in Table 19 below and Table 29 (p. 252)

Table 19: Work relationships - Whole-School Level (Interview Data)

Excerpts of Interviewees' comments
'...on school matters, working relationship is collegial and everyone works as a team to get the work done'. (H1S1)
'Quite collegial relationship within school ... You have support most of the time e.g. coordination with other heads of department (e.g. Mathematics, Pupil Welfare, Discipline Mistress) to avoid clashes in deployment of personnel for 'N' and 'O' examination duties and Integrated Curriculum project work, and venues'. (H1S6)

c) Cluster level

The survey open response data also show that at the cluster level work relationships are

collegial in nature. Heads of department point out that the cluster setting facilitates

collegial collaboration as 'being in the cluster, HODs are able to work and collaborate

with HODs in other schools' (69) and are '...provided opportunities for HODs to interact

and share' (13). They add that the collaborative interactions also '...improved

relationship among teachers in the cluster' (44) and that they have opportunities to

interact and '...work with principals given charge of the programmes...' (98) '...in

different teams' (2). Excerpts of their responses are shown in Table 20 below.

Table 20: Work Relationships - Cluster Level (Survey Open Response Data)
Excerpts of Heads of Department's Responses

HODs & Teachers	HODs & School Leaders
'Being in the cluster, HODs are able to work and collaborate with HODs in other schools'. (69)	'I have...to interact with other Principals and Vice-Principals'. (75)
'The cluster has certainly provided opportunities for HODs to interact and share'. (13)	'We work with principals given charge of the programmes...'. (98)
'I would say we (HODs in cluster schools for my department/area) are very cooperative and able to share'. (24)	'Through more interaction and collaboration with other leaders in the cluster, there was a great deal of exchange of ideas'. (86)
'It improved relationship among teachers in the cluster'. (44)	'Work with other Principals and HODs in different teams'. (2)

The survey open response data show that the collaborative activities at cluster level include participation in i) subject support groups; ii) professional sharing sessions; iii) cluster sub-committees and iv) sharing of resources. A major benefit derived from the cluster collaboration is 'sharing and learning' among heads of department as 82.8 % of the heads of department indicate (see (See Table 11, p. 223).

i) Heads of department's write that through participating in the subject support groups there is networking and support '...from fellow peers of the same position. You're not alone in this position and situation'. (93); and 'through more interaction and collaboration with other leaders in the cluster, there was a great deal of exchange of ideas' (86) and 'comparisons and benchmarking are feasible...' (71). Excerpts of heads of department's responses are shown in Table 21 ('Support & Networking' column) below.

Table 21: Collaborative Cluster Activities (Survey Open Response Data) Excerpts of Heads of Department's Responses

Support & Networking	Professional Sharing	Leading Sub-committees	Sharing of Resources
'Increased working relations with HODs from other schools forming a "support group" for the teachers'. (20)	'Through more interaction and collaboration with other leaders in the cluster, there was a great deal of exchange of ideas'. (86)	'I may have to lead/work in groups beyond my school'. (74)	'Cluster makes it possible for pooling of resources and organizing workshops on a larger scale for the benefit of all HODs and teachers'. (63)
'There is support from fellow peers of the same position. You're not alone in this position and situation'. (93)	'Learnt from the experience of schools. Found out what ideas worked, which are reliable vendors/service providers etc'. (55)	'Extra workload on HOD in charge of sub-committees...'.(44)	'Collaboration with HODs in cluster events – results in division of labour, teamwork, etc'. (55)
'Within the cluster, it is easier to share and seek opinions among fellow HODs'. (8)	'Comparisons and benchmarking are feasible as there are sharings and meetings of HODs from the same cluster'. (71)		'It has reduced preparation time for examination papers because of the sharing of question papers'. (81)
	'...also able to benchmark with other schools on the best practices to date'. (85)		'We maximise the use of resources in carrying out common activities for pupils'. (12)
	'Exposure to better practices, facilities, ideas etc'. (93)		
	'Sharing sessions of successful lessons'. (87)		

ii) Heads of department find that the professional sharing sessions enable shared learning amongst themselves. They have 'exposure to better practices, facilities, ideas etc' (93) and benefit from 'sharing sessions of successful lessons' (87); they are '...also able to benchmark with other schools on the best practices to date' (85), and leverage on '...the experience of schools...what ideas worked, which are reliable vendors/service providers etc' (55). (See Table 21: 'Professional Sharing' column). The cluster provides

opportunities for heads of department to be '...in charge of sub-committee...' (44) and '...to lead/work in groups beyond my school' (74) rather than to be only participants (see Table 21: 'Leading Sub-Committees' column).

iii) There is collaboration in the pooling and sharing of resources. Joint cluster projects/activities enable the schools to 'maximize the use of resources in carrying out common activities for pupils' (12), and to benefit from '...division of labour, teamwork, etc' (55). In addition the 'cluster makes it possible for pooling resources and organizing workshops on a larger scale...' (63) and even '...reduced preparation time for examination papers because of the sharing of question papers' (See Table 21: 'Sharing of Resources' column).

Interview data confirm the collaborative work relationships at cluster level among heads of department as well as between heads of department and school leaders (i.e. vice-principals and principals), as evident in support and networking, professional sharing, leading sub-committees and sharing of resources. Respondents elaborate that with cluster collaboration 'there is a pool of people to turn to' (H2S2); it provides an avenue for heads of department to share and acquire new ideas as 'being in a 'bigger family helps networking...' (H1S1) and there is 'common ground' (H1S1) for them to meet. Substantiating the survey responses of the heads of department, respondents interviewed point out that 'with cluster there is...a lot more sharing' (H1S5), 'more ideas' (H1S4) on 'best practices (H1S6) and '...about how they run their departments' (H2S2). The respondents also describe the leadership role they have to take on at cluster level such as 'cluster coordinator of programmes ' (H1S1), 'HOD of cluster helping the subject

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departments in joint activities' (H1S3), '...overseeing a bigger area at cluster level' H1S2) and even being '...tasked to lead a group of Ps, VPs & HODs in a recreation event...' (H2S1). Respondents elaborate that they also collaborate in terms of 'sharing of resources: 'exchange of preliminary "O" papers' (H1S2), and '...setting examination papers' (H1S6) which '...cuts down the work...' H1S6) and 'cuts down time (H2S1). Excerpts of interviewees' comments are shown in Table 22 below.

Table 22: Collaborative Cluster Activities (Interview Data)
Sample Quotes from Heads of Department

Support & Networking	Professional Sharing	Leading Sub-Committees	Sharing of Resources
'...it does help in building good relationships. You can relate with the HODs because of the common things you have in relation to your work'. (H1S4)	'Cluster has facilitated sharing for heads of department of different schools'. (H1S3)	'Once I was tasked to lead a group of Ps, VPs & HODs in a recreation event at the cluster planning seminar'. (H2S1)	'Sharing of resources, exchange of preliminary 'O' papers'. (H1S2)
'Being in a bigger family helps networking; we meet on common ground and there is exchange of views and ideas'. (H1S1)	'Because you work with others, you get more ideas'. (H1S4)	'I see myself as HOD of cluster helping the subject departments in joint activities'. (H1S3)	'Cluster Maths paper - cuts down the work on setting exam papers'. (H1S6)
'Quite collegial relationship with cluster vice-principals and principals'. (H1S2)	'With cluster, there is a lot more sharing'. (H1S5)	'I now oversee a bigger area at cluster level'. (H1S2)	'Preparation of resources cuts down time'. (H2S1)
'There is a pool of people to turn to'. (H2S2)	'Shared a lot about how they run their departments'. (H2S2)	'I am cluster co-ordinator of programmes'. (H1S1)	
'There is support from others and vice-versa'. (H1S6)	'Sharing of best practices'. (H1S6)		

Documentary evidence corroborates the survey findings and interview findings of collegial work relationships at cluster level. Minutes of cluster board meetings show that collaborative decision-making is carried out at the administration level by the Cluster Board comprising the cluster superintendent (as the chair) and principals of the cluster schools on a variety administrative matters including personnel matters such as

intra-cluster transfer and performance appraisal; budgeting of cluster funds; and cluster initiatives (see Chapter 2, p. 140).

Minutes of meeting of subject support groups show that heads of department have regular subject support group meetings where those of the same subject/s and interests discuss and share on improving teaching-learning. For example, there is collaboration in curriculum matters such as: sharing of effective teaching strategies and best practices; sharing of resources such as IT-based lesson plans and worksheets; developing question item banks and setting of common examination papers as evident in the minutes of cluster meetings (e.g. Minutes of Meeting - Cluster Science Meeting, 1998; Minutes of Meeting - Cluster Mathematics Department, 1998). The minutes of cluster subject support group meetings also show that schools collaborate in mass cluster activities for pupils as evidenced by the bulk purchases of materials such as t-shirts, and bulk printing of certificates (Minutes of Meeting-Cluster Mathematics Department, 1998). The minutes of meetings also show that there is cluster support for collaborative activities by way of cluster funding for materials, prizes, stationary and refreshment (e.g. Minutes of Science Meeting Cluster Meeting, 1998).

In summary, the evidence of a collegial work relationship in the internal school environment reflects a work culture which values teamwork, support and cooperation both vertically and horizontally with the involvement of everyone in the school: principal, vice-principal, heads of department, teachers and non teaching staff. Similarly, the variety of collegial collaborative activities that heads of department (as well as school leaders), are involved in at cluster level bears testimony of a culture of collaboration in

the cluster. This, together with the findings of collegial work relationships at departmental level and whole-school level points to evidence of a shared culture at school level as well as cluster level.

4.2.4 Role Functions: Work That Heads of Department Do

This section presents the findings on the duties and responsibilities of heads of department in terms of different levels of their role as spelt out in the operationalisation of 'role functions' explained in the conceptual framework section (see Chapter 2, p. 143). The findings reveal that the heads of department perform four major roles. These include: a) a teaching role; b) a departmental role; c) a whole-school role; and d) a cluster role.

4.2.4.1 Teaching Role

The findings from analysis of official documents such as job description (e.g. Ministry of Education, 2000), *Profile of a Head of Department* (POH) (Ministry of Education, 1996), and *Enhanced Performance Management System* (EPMS) (Ministry of Education, 2002) show that there is contrasting focus in the definitions of the departmental heads' teaching role in each of the documents. In the job description the emphasis is on 'a reasonable number of hours' of teaching; in the POH it is on 'delivery of lessons' and 'classroom management'; while the EPMS under 'knowledge and skills' requires that the head of department '...integrates knowledge to own teaching practice as well as the instructional programmes...' as shown in Table 23 below.

Table 23: Teaching Role of Heads of Department

Job Description	Profile of a Head of Department (POH)	Enhanced Performance Management System (EPMS)
'to teach the subject(s) for a reasonable number of hours so that he is in the position to coordinate, advise and give practical assistance on them'	Attribute: delivery of lessons 'delivers lessons in an interesting and effective manner with good teaching techniques and time management' Attribute: classroom management 'maintains good discipline and organizes class activities and materials appropriately'	'demonstrate knowledge in latest research in the field of education and integrates knowledge to own teaching practice as well as the instructional programmes within the department/subject area/level'

Interview findings reveal that heads of department carry a teaching load which approximates two-thirds of an ordinary teacher's teaching load. However all the heads of department interviewed contend that despite the off-loading, they have a heavy workload. As a respondent explains:

'although heads of department teach a workload of about 24 periods compared to a teacher's 32-38 periods per week, the paperwork is far more than the off-loading and with graduating classes and the need to produce results I really have to put in more effort'. (H1S5)

4.2.4.2 Departmental role

From the documentary analysis of i) *Profile of a Head of Department* (POH) (Ministry of Education, 1996); ii) the job description (e.g. Ministry of Education, 2000); and iii)

the *Enhanced Performance Management System* (EPMS) (Ministry of Education, 2002), it is found that expectations of the departmental role have increased with the EPMS.

i) The *Profile of a Head of Department* (POH) (Ministry of Education, 1996) documents 'the principal duties and responsibilities of HODs in their management of school programmes and activities' (Ministry of Education, 1996, p. i) in terms of 26 attributes, among which are: leadership; professional knowledge; monitoring, supervision and evaluation; conceptualization and planning; and administrative competency. For 'leadership', the head of department is accountable for articulating and building ownership of the departmental vision, setting goals, building an effective team, developing teachers and maximizing use of resources. For 'professional knowledge', the department head is expected to upgrade himself in skills and knowledge, keep departmental members abreast of national and professional issues, and identify staff training/development needs. For 'monitoring, supervision & evaluation', the accountabilities are clear programme objectives, effective supervision and evaluation. For 'conceptualisation & planning' the expectation is achievable and realistic plans both short-term and long-term, and for 'administrative competency', the head of department is expected to have a comprehensive organisational structure with well-defined roles and responsibilities, and an efficient procedures and documentation system (Ministry of Education, 1996). Descriptions of these major attributes are shown in Table 24 below.

Table 24: Profile of a Head of Department - Selected Major attributes

Major attributes	Description
leadership	sets directions for the area(s) under his charge and inspires staff to give of their best (p.1)
professional knowledge	is well informed on national education policies and recent developments in education and has good knowledge in professional areas to assist teachers to be more effective (p. 4)
monitoring, supervision & evaluation	systematically monitoring programmes under his charge, supervises the work of teachers through formal and informal observations, and evaluates programmes (p.6)
conceptualisation & planning	is able to conceptualise and plan programmes and activities effectively (p. 7)
administrative competency	is able to handle administrative matters and procedures effectively' (p. 9)

Source: Profile of a Head of Department (Ministry of Education, 1996)

ii)   The job description of heads of department (Ministry of Education, 2000) reflects the accountabilities of the departmental role described in the POH but outlines the duties and responsibilities of the heads of department in no less than 15 statements or expectations (see Chapter 1, pp. 13-14) which on scrutiny, is broadly distributable among four 'broad' categories of role functions (see Chapter 1, p. 15). These categories are firstly, 'departmental management' encompassing 11 out of 15 statements; secondly, 'administration' with 2 statements; thirdly, 'classroom teaching' with 1 statement; and lastly, whole-school role with 1 statement. Sample statements from the job description (see pp. 13-14) fitting each 'broad' group of role functions are shown in Table 25 below:

Table 25: Job Description - Role Functions of Heads of Department
Selected Statements

Role function	Selected Statements
Departmental management	Statement 2: To plan, implement and evaluate a comprehensive programme of instruction in the subject(s) including remedial and enrichment programmes; and Statement 5: To develop teachers in his subject areas through classroom observations, induction of new/relief teachers, conferencing and workshops.
Administration	Statement 15: To assist the Principal and Vice-Principal on administrative matters as required including covering their duties whenever necessary.
Teaching	Statement 4: To teach the subject(s) for a reasonable number of hours so that he is in the position to coordinate, advise and give practical assistance on them.
Whole-school	Statement 14: To function as part of the school's management team in respect of decisions relating to School's programmes and allocation of resources.

Source: Job description (Ministry of Education, 2000)

iii)   The recently implemented *Enhanced Performance Management System* (EPMS) (Ministry of Education, 2002) which was announced to school leaders in 2001 defines five major accountabilities or Key Result Areas (KRAs) for heads of department in the 'Role Profile of Leadership Field of Excellence' section of the EPMS document. These Key Result Areas or KRAs are:

• charting organisational directions through leadership/vision, and strategic planning and administration;

• development & management of staff;

• management of pupil-focused processes;

- management of resources; and

- professional development.

The KRAs and examples of corresponding accountabilities pertaining to the role of heads of department are shown in Table 26 below.

Charting organisational directions

As can be seen in Table 26 below, examples of accountabilities for KRA: 'charting organisational directions' are: setting departmental vision/direction and strategic planning. However other accountabilities outlined in the EPMS include spearheading and mediating MOE's initiatives to staff, reviewing curriculum materials, integrating National Education messages into the subjects, and working with cluster.

Development & management of staff

For KRA: 'development & management of staff ', the examples of accountabilities as shown in Table 26 are: supervision and monitoring of teachers work and catering for their training and developmental needs. However, other accountabilities outlined in the EPMS indicate that heads of department also are required to review and evaluate teachers' performance and coach teachers for improvement.

Management of pupil-focused processes

For KRA: 'management of pupil-focused processes', heads of department's responsibilities as shown in the examples in Table 26, are to monitor and assess pupils' performance and development, as well as conduct data analysis of results and evaluate learning outcomes. Other accountabilities evident in the EPMS are to structure new programmes/workshops, introduce new teaching methodologies, explore assessment

modes and use of information to improve pupil performance.

Table 26: EPMS - KRAs & Selected Accountabilities of Heads of Department

Key Result Areas (KRAs)	Accountabilities (Examples)
Charting organisational directions through: ▪ leadership/vision ▪ strategic planning & administration	▪ set vision/direction for the department and the instructional programmes in line with school goals and student needs ▪ contribute to school's short and long-term goal-setting, strategic planning and review process
Development & management of staff	▪ Supervise and monitor progress and achievement of work outcomes of teachers in the department ▪ identify training and developmental needs for the department and plan for relevant training activities
Management of pupil-focused processes	▪ monitor and assess pupils' performance and development ▪ conduct data analysis of results and evaluate learning outcomes of instructional programmes under department
Management of resources	▪ plan and manage allocated budget for instructional programmes across the different subjects under department ▪ oversee the proper allocation, management and usage of physical and teaching-learning resources (facilities/equipment)
Professional development	▪ engage in continual development in professional expertise, managerial and leadership skills ▪ act as a mentor to teachers in school; provide expert knowledge in subject area and help teachers in the school

Source: Role Profile of Leadership Field of Excellence (Ministry of Education, 2002)

Management of resources

For KRA: 'management of resources', heads of department are responsible for planning and managing allocated budgets and overseeing proper allocation, management and usage of resources as described in the examples in Table 26. However their other accountabilities as outlined in the EPMS include monitoring use of funds and forming partnerships with parents and the community.

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Professional development

For KRA 'professional development', examples of accountabilities are that heads of department are required to continually develop themselves professionally and mentor teachers as shown in Table 26. However, other accountabilities in the EPMS also show that heads of department are required to facilitate teachers' professional development by sharing professionally at both school and cluster levels (Ministry of Education, 2002). In addition the EPMS has another section entitled 'Knowledge and Skills', which further expects heads of department to demonstrate, clear/strong knowledge of education policies; development in field of education; leadership and school management; and people management ((Ministry of Education, 2002).

Interview data show that heads of department perceive their role to be a management role. Respondents describe their role in mainly management and administrative terms such as '...managing of department and developing people' (H1S6), '...handhold and mentor...' (H1S5), 'leading, steering, spearheading e.g. leading a team' (H1S3), and 'administrative work...' (H2S2) as excerpts of their comments in Table 27 show. These role functions are similar to the accountabilities in the POH (see Table 24, p.245).

Table 27: Departmental Role (Interview Data)

Excerpts of Interviewees' Comments
'The role is managing of department and developing people'.   (H1S6)
'Heads of department are expected to be role models, give direction, provide resources, handhold and mentor to bring out the potential of those they manage, and motivate and reward'.   (H1S5)
'Leading, steering, spearheading e.g. leading a team'. (H1S3)
'Administrative work is quite substantial amount - a lot of planning'. (H2S2)

As can be seen from Table 27 above, there is no reference by heads of department to the strategic planning and envisioning role of heads of department who are on the Leadership Track described in the EPMS. However it is to be noted that the EPMS and its emphasis on the strategic role of the heads of department only came into the limelight in 2002 and it was only implemented in 2003 as a measure of school leadership performance.

4.2.4.3 Whole-School Role

Findings of the documentary analysis show that the whole-school role played by the heads of department is described in a) the job description as well as b) the EPMS document and is implicit in c) the *School Excellence Model* (SEM) document.

a) Job description

In the job description (Ministry of Education, 2000) the whole-school role entails being '...part of the school's management team...' (see Table 25: statement 14, p. 246).

b) *Enhanced Performance Management System* (EPMS)

In the *Enhanced Performance Management System* (EPMS), the whole-school role is described under Key Result Area (KRA): 'charting organisational directions', and involves '...short and long-term goal setting, strategic planning and review...' (see Table 26, p. 248). The whole-school role taken from both documents is compared in Table 28 below.

Table 28: Whole-School Role of Heads of Department

(Job description & EPMS)

Job description	Enhanced Performance Management System (EPMS)
'To function as part of the school's management team in respect of decisions relating to School's programmes and allocation of resources' (Ministry of Education, 2000, Annex H)	'contribute to the school's short and long-term goal-setting, strategic planning and review process' (Ministry of Education, 2002)

c) *School Excellence Model* (SEM)

In the *School Excellence Model* (SEM) document (see Chapter 2, pp. 43-46), the whole-school role of heads of department as part of the school management team is implicit in the school's internal self-appraisal process. The SEM deems leadership as crucial to school excellence and in an excellent school the leaders lead staff, devise strategies and deploy resources through student-focused processes to produce excellent results. The implication in the SEM is that heads of department have a crucial whole-school role together with their principal and their vice-principal as the leadership team that steers the school forward (Ng, 2003) (see Chapter 2, p. 45).

Minutes of meetings of school management teams, that is, School Executive Committees or School Management Committees (SEC/SMC), show evidence of heads of department's involvement in whole-school decision-making together with their principals and vice-principals.

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Interview findings confirm that heads of department play a leadership role as part of the school management team. Respondents say that they '... work as a team in the SEC' (H1S1) with their principals and vice-principals. Describing it as '... a whole-school approach' (H2S2), collegial decision-making is carried out on whole-school matters such as '...administration, school policy and school plans' (H1S6), '...deployment, N & O examinations, co-curricular activities etc' (H2S1), and '...there is support and coordination to avoid clashes of personnel, venues and duties'. (H1S5). Excerpts of heads of department's comments are shown in Table 29 below.

Table 29: Whole-School Role of Heads of Department (Interview Data)

Excerpts of Interviewees' Comments
'... work as a team in the SEC'. (H1S1)
'It is a whole-school approach that we take'. (H2S2)
'We work with other HODs for deployment, N & O examinations, co-curricular activities etc'. (H2S1)
'HODs contribute in administration, school policy and school plans'. (H1S6)
'In the SEC there is support and coordination to avoid clashes of personnel, venues and duties'. (H1S5)

4.2.4.4 Cluster role

The survey open response findings show that the heads of department's role includes a cluster component which entails collegial collaboration with other middle managers as well as school leaders at cluster level. As a result of the collaborative cluster role, heads of department find that they have now become '...an HOD not only in my school...but

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also of the cluster' (65), and their '...role as HOD has been extended to more collaborations with other HODs in planning activities for all pupils in the cluster' (12). They elaborate that '...the HOD must also participate in cluster activities and attend meetings' (29), and perform other duties like '...lead/work in groups beyond my school' (74), take '...charge of sub-committees...' (44) and organise '...cluster competition, games and camps' (90). This is illustrated in excerpts of heads of department's responses in Table 30 below.

Table 30: Cluster Role (Survey Open Response Data)

Excerpts of heads of department's responses
'I'm an HOD not only in my school... but also of the cluster'. (65)
'...other duties are added on, for example, cluster competition, games and camps'. (90)
'My role as HOD has been extended to more collaborations with other HODs in planning activities for all pupils in the cluster'. (12)
'Besides planning and executing activities for our own school, the HOD must also participate in cluster activities and attend meetings'. (29)
'I am expected to work with HODs in the same cluster and share ideas'. (85)
'I have to lead/work in groups beyond my school'. (74)
'HOD in charge of sub-committees...'. (44)

Documentary analysis of the *Enhanced Performance Management System* (EPMS) document (Ministry of Education, 2002) reveal that it is only recently that the cluster role has been spelt out officially as part of heads of department's role although the School Cluster system has been in place since 1997. The cluster role now takes its place among other accountabilities of heads of department in the EPMS and is described in the 'Role Profile of Leadership Field of Excellence' under the two Key Result Areas (KRAs): 'Charting Organisational Directions' and 'Professional Development'. As shown in

Table 31 below, heads of department are expected to '...coordinate at cluster level to ensure consistency in the delivery and assessment of subject' and 'facilitate the professional development of teachers by doing professional sharing at school/cluster level'.

Table 31: Cluster Role - EPMS

KRA: 'Charting Organisational Directions	KRA: 'Professional Development'
'Work with cluster and co-ordinate at cluster level to ensure consistency in the delivery and assessment of subject'	'Facilitate the professional development of teachers by doing professional sharing at school/cluster level'

In summary, the findings have shown that although four key official documents namely: the job description (Ministry of Education, 2000); the *Profile of the Head of Department* (POH) (Ministry of Education, 1996); the *School Excellence Model* (SEM) (Ministry of Education, 2000); and the *Enhanced Performance Management System* (EPMS) (Ministry of Education, 2002) describe the role functions of heads of department to varying extents, the EPMS is the most comprehensive in delineating the role functions of the heads of department at all four level of roles (classroom, department, whole-school and cluster). However, it might be appropriate at this point to mention that at the point of gathering data in 2000, the heads of department did not have the 'privilege' of the EPMS, for the EPMS, as part of 'a major restructuring' in the Singapore education system announced by then Minister for Education in April 2001 had not been implemented yet. In 2000, the job description for heads of department did not contain any cluster duties while the POH understandably did not mention anything about the cluster, as the school cluster concept was only mooted in 1997 while the SEM is designed specifically for the purpose of internal school self-appraisal. As the findings

show, the expansion of the heads of department's role has been accompanied by increased expectations of the role. The impact of these changes is presented below.

4.3   Role Tensions

The findings on role tensions are presented under the concepts of a) role strain; b) role ambiguity; c) role conflict; d) satisfaction with role; and e) commitment to staying in the role. The elements investigated under each of the above concepts are: lack of time, workload and role overload, lack of clarity of role definition, and conflicting expectations corresponding to role strain, role ambiguity, and role conflict respectively, while the elements in role satisfaction and role commitment are pressure and stress (see Table 32 below). This corresponds to the operationalisation of the variables in the conceptual framework explained in Chapter 2 (see Figure 10, p. 142).

Table 32: Presentation of Findings on Role Tensions

Concepts	Elements
role strain	workload (lack of time and role overload)
role ambiguity	lack of clarity of role definition
role ambiguity	conflicting expectations
satisfaction with role	pressure and stress
commitment to staying in the role.	pressure and stress

4.3.1   Role Strain: Workload, Lack of Time & Role Overload

The findings show that time constraint and heavy workload are major issues for the heads of department. Survey results show that more than half of the heads of department (i.e. 53.6%) indicate strongly (i.e. to a 'considerable'/'very great' extent) that there is

inadequate time to do all their tasks while another one-third (i.e. 32.3%) indicate that

they have inadequate time to 'some' extent (see Table 33, item 19; Appendix 10:

Subscale F3 'Workload').

Table 33: Workload (Survey Data)

Item	To a 'Very great'/ 'Considerable' Extent	To 'some extent'
3. I feel a lot of pressure in my job	50.5%	39.4%
19. I find that I have not enough time to complete all my tasks	53.6%	32.3%
22. I find my job very stressful	44.4%	35.4%

Survey open response data show that 41.4% of heads of department express concern over

increased workload and their enlarged scope of responsibilities in relation to cluster work

(see Table 11, p. 223). They feel that 'multitasking is a superhuman task' (68) as

'...doing the HOD job/duties ...is already no joke' (73), and the 'cluster has also made

the role of HODs more challenging...' (69). Sample survey responses are shown in Table

34 ('Survey' column) below.

Similarly, interview data show that heads of department's concerns are that 'cluster

resulted in increased workload' (H1S1) and that they now need to '...multi-task in the

cluster'.   (H1S2).   Excerpts of their comments are shown in Table 34 ('Interview'

column) below.

Table 34: Workload
(Survey Open Response & Interview Data)
Excerpts of Heads of Department's Responses/Comments

Survey	Interview
'In my workplace I have to state the roles and contributions to the cluster as well'. (65)	'The role is bigger than the department. Now the head of department's scope is school-wide. Four to five years' back, the role was more departmental. Now you need to work on inter-departmental basis and multi-task in the cluster'. (H1S2)
'Cluster has also made the role of HODs more challenging...'. (69)	'Cluster resulted in increased workload'. (H1S1)
'Doing the HOD job/duties ...is already no joke'. (73)	'As we are given a role to play in the cluster; have to work with other heads of department to come up with creative ideas'. (H1S4)
'Scope of work has expanded'. (71)	
'Multitasking is a superhuman task'. (68)	

Survey open response data also show that 22.2% of the heads of department attribute time constraints to cluster activities (see Table 11, p. 223). For example heads of department claim that at cluster level, there are 'too many activities/seminars/courses organised resulting in loss of my time' (52), and '...more activities generated, requiring more time, more effort and more energy' (39). Furthermore, 'the HOD must also...attend meetings. This means more time is needed' (29) and 'the cluster adds on a lot more sharing which may not necessarily be beneficial' (73). One head of department points out that 'there are more activities/programmes to be organised at cluster level. It can be time-consuming as the school has organised activities for the students throughout the year' (83) while another's problem is that: 'I need more time to co-ordinate among HODs of other schools'. (18) Samples of their comments are shown in Table 35 below.

Table 35: Time Constraints - Cluster Activities (Survey Open Response Data)

Examples of Heads of Department's responses
'Too many activities/seminars/courses organised resulting in loss of my time'. (52)
'The HOD must also...attend meetings. This means more time is needed'. (29)
'More workshops/seminars organised. More commitment as a result of the need to participate in cluster activities'. (16)
'There seems to be more activities generated, requiring more time, more effort and more energy'. (39)
'There are more activities/programmes to be organised at cluster level. It can be time-consuming as the school has organised activities for the students throughout the year'. (83)
'The cluster adds on a lot more sharing which may not necessarily be beneficial'. (73)
'I need more time to co-ordinate among HODs of other schools'. (18)
'The cluster has organised activities during the holidays - taking up time that one could spend with the family'. (81)

Interview findings support the survey findings above that heads of department face time constraints. The respondents explain that they are '...short of time to complete all tasks' (H1S6) and '...need more time so that I can do more...' (H1S1). Implying that there is too much administrative work vying for their limited time one respondent said '...the paperwork is far more than the off-loading...' (H1S5). Excerpts of interviewees' comments are shown in Table 36 below.

Table 36: Workload (Interview Data)

Excerpts of interviewees' comments
'I'm sometimes short of time to complete all tasks'. (H1S6)
'I need more time so that I can do more...I wish the day could be 36 hours...'. (H1S1)
'...the paperwork is far more than the off-loading...'. (H1S5)

The interview data show that administration and cluster activities are cited as major reasons for the lack of time. The respondents say that 'cluster sharing takes time to prepare as it is on a larger scale and more input is needed' (H1S6), and too many cluster activities – they take focus away from school therefore robbing you of your precious time' (H1S1). As for administration, the heads of department contend that 'at times administration bogs down the head of department...' (H1S4) and as 'administration is quite a substantial amount...can't follow up on monitoring and evaluation (H1S3). Heads of department claim that because of time constraints they '...don't really have the time to build relationships...' (H1S1). It is 'only the School Executive Committee (SEC) pulls heads of department together; otherwise it is I do my thing and you do your thing' (H1S1). Excerpts of interviewees' comments are illustrated in Table 37 below.

Table 37: Workload - Cluster Work, Administration & Work Relationships (Interview Data)

Excerpts of interviewees' comments

Cluster activities	Administration	Work relationships
'Cluster sharing takes time to prepare as it is on a larger scale and more input is needed'. (H1S6)	'At times administration bogs down the head of department. I wish for less of administration so that I can do more of the "real work" e.g. monitoring and evaluation'. (H1S4)	'I don't really have the time to build relationships. However on school matters, working relationship is collegial and everyone works as a team to get the work done'. (H1S1)
'Too many cluster activities – they take focus away from school therefore robbing you of your precious time'. (H1S1)	'I spend most of my time on administration in terms of paper work for managing enrichment programmes'. (H2S1)	'Only the School Executive Committee (SEC) pulls heads of department together; otherwise it is I do my thing and you do your thing'. (H1S1)
'There are so many cluster programmes therefore we have to plan carefully to avoid clashes'. (H1S5)	'Administration is quite a substantial amount...can't follow up on monitoring and evaluation'. (H1S3)	

Documentary evidence corroborates the survey findings and interview findings that cluster activities encroach on the limited time of heads of department. Minutes of cluster support group meetings (e.g. Minutes of Science Cluster Meeting, 1998) show that heads of department participate in cluster activities such as workshops (e.g. on "Infusing Thinking Skills into Science Teaching") and sharing sessions (e.g. on IT, and Problem-Based Learning) as indicated by records of attendance of heads of department at the support group meetings (e.g. Mathematics minutes of meeting, 1998). The findings show that heads of department find collaborating in common examination papers time-consuming, and although it '...saved time in setting questions, teachers found that a lot of time was spent in the modification of the questions' (Minutes of Science Cluster Meeting, 1998) and '...to meet quality required, sometimes HOD has to do a lot of resetting and vetting' (North Zone Cluster Schools Self-Appraisal Report, Mathematics, 1997). This has added to the workload of heads of department, although the rationale for common examinations is to reduce teachers' workload. Extracts from minutes of meeting in Table 38 below illustrate this.

Table 38: Workload - Cluster Activities (Documentary Analysis)

Extracts from minutes of meeting
'... setting common examination papers has lessened the workload of teachers especially during the Mid-year when there was a shortage of staff. However, due to lack of standardisation in particular the weightage allocated to each topic and to meet quality required, sometimes HOD has to do a lot of resetting and vetting'. (North Zone Cluster Schools Self-Appraisal Report, Mathematics, 1997, p. 1)
'Although having common examination papers saved time in setting questions, teachers found that a lot of time was spent in the modification of the questions'. (Minutes of Science Cluster Meeting, 1998, p. 1)

4.3.2 Role Ambiguity: Lack of a Clear Role Definition

The survey data show that there is ambiguity in the department heads' role and that the role is 'clearly defined' only to 'some extent' as measured by the mean score of 3.5 for the subscale F6 'Role Definition' (See Appendix 10: Subscale Means). The survey data show that less than two-thirds or 64.6% of department heads find that the HOD's role is clearly defined to a 'considerable' or 'very great' extent (see Table 39: item 20) and slightly more than two-thirds or 69.7% perceive that the job description is 'very' or 'considerably' clear about the duties and responsibilities of heads of department (see Table 39: item 21).

Table 39: Role Definition (Survey Data)

Item	To a 'Very great'/ 'Considerable' Extent	To 'some' extent	To 'slight'/ 'No' extent
20. The HOD's role is clearly defined	64.6%	25.3%	9.1
21. The duties and responsibilities of the HOD are clearly spelt out in the job description	69.7%	24.2%	5.1

The survey open response data reveal that there is ambiguity about the role with regard to cluster work which is not included in the job description as part of the duties and responsibilities of heads of department (see pp. 245- 246), and has contributed to role strain and time management problems for them (see pp. 255-260). The findings show that contrary to the expectations of heads of department that the cluster will reduce workload it resulted in increased workload instead and schools are 'supporting cluster

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activities instead of being supported by cluster' (91). As perceived by the departmental

heads, 'cluster is supposed to cut down work but it seems the opposite' (43) and '...the

cluster is supposed to support school programmes but looks like schools are supporting

superintendent's ideas!' (46). Excerpts of survey responses are shown in Table 40 below.

Table 40: Role Ambiguity - Cluster Role (Survey Open Response Data)

Excerpts of survey responses
'Cluster is supposed to cut down work but it seems the opposite'. (43)
'The cluster is supposed to support school programmes but looks like schools are supporting superintendent's ideas!' (46)
'Supporting cluster activities instead of being supported by cluster'. (91)

Interview findings support the survey finding that there is ambiguity about the heads of

department's role. As one respondent shares, 'the problem of what actually is our role

was brought up in an IT seminar' (H1S4). Respondents say that role ambiguity exists

because the job description lacks specificity in defining the role: 'It doesn't tell

you...everything a head of department needs to do' (H1S3); and its contents are

'...guidelines and general' (H2S2). It gives more emphasis to their management

functions for example 'it is more on the instructional programme (IP) responsibility and

manning department...' (H1S1) and '... and developing people' (H1S6), but 'there is

lack of clarity...especially in the IT area. The non IP area is still hazy...' (H1S4), and

'other things are not clear like the extra administration duties to be carried out ...'

(H2S2) (see excerpts of interview responses in Table 41).

Table 41: Role Ambiguity - Job description (Interview Data)

Excerpts of interviewees' comments
'The job description is just a piece of paper'. (H1S1)
'Its contents only... guidelines and general'. (H2S2)
'The job description does not give specific details on what to do'. (H2S1)
'It doesn't tell you in the job description everything a head of department needs to do'. (H1S3)
It is more on the instructional programme (IP) responsibility and manning department...'. (H1S1)
'It is clear only in managing of department and developing people'. (H1S6)
'There is lack of clarity...especially in the IT area. The non IP area is still hazy. The problem of what actually is our role was brought up in an IT seminar'. (H1S4)
'Other things are not clear like the extra administration duties to be carried out in terms of the needs of the school'. (H2S2)
'Extra duties goes beyond role as HOD - taking on projects for pupils which are outside curriculum and cluster work'. (H1S6)

4.3.3 Role Conflict: Conflicting Expectations

Table 42: Expectations (Survey Data)

Item	To a 'Very great'/ 'Considerable' Extent	To 'some' extent	To 'slight'/ 'No' extent
4. I know the standards of performance I have to meet for my role	85.9%	12.1%	2.0
5. I am given enough facilities/equipment to do my job efficiently	69.7%	26.3%	3.0
6. When faced with a difficulty, I can usually count on getting assistance from my colleagues	70.7%	26.3%	2.0

The survey findings show that heads of department experience role conflict because of conflicting expectations. Although the survey data show that 85.9% of heads of department are aware to a 'considerable' or 'very great' extent about expectations required of their role (see Table 42: item 4 above), only 57.6% of the heads of department feel that 'HODship' has met their expectations; 35.4% indicate that their expectations have not been met; and a meagre 3.0% indicate that 'HODship' exceeded their expectations (see Table 43).

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Table 43:   Expectations of HODship

Item 25	Respondents %
HODship has positively exceeded expectations	3.0
HODship delivered what was expected	57.6
HODship failed to meet expectations	35.4
Total	96.0*

*no response   4.0%

The survey open response data show that there are conflicting expectations at school and cluster levels. As shown in Section 4.3.2 (pp.261-263), there is a disparity between the expectations of heads of department about the cluster and the cluster's expectations of heads of department's participation in cluster collaborative activities (see Table 40. p. 262). The findings indicate that a conflict of roles exists because the objectives of the cluster and the school do not converge for example, heads of department feel that 'cluster-initiated courses/activities are not aligned to school programmes...' (89) and '...if cluster activities are "stand alones", that is, without any integration with school strategic plans, then...Teachers will be "unhappy" with the additional activities that do not fit with their school's total plan' (17). The findings show that heads of department

are placed in a dilemma when cluster activities are given priority over their school work. Department heads write that they '...find it frustrating that our concerns are different (that is, HODs with the cluster) ...' (45) and 'I have to put aside my ideas and plans to support cluster activities' (46) and '... our school work gets affected' (54). They also point out that 'more cluster activities are organised and these impose on the school resources and manpower' (30). Sample responses of department heads are shown in Table 44 below.

Table 44: Role Conflict – Cluster vs. School Expectations

(Survey Open Response Data)

Sample responses of heads of department
'I have to put aside my ideas and plans to support cluster activities'. (46)
'There is more cluster work and our school work gets affected'. (54)
'I'm heavily involved in cluster activities. My teachers are spread far too thin as cluster activities are over and above the school programmes. Where is their priority'? (23)
'I find it frustrating that our concerns are different (that is, HODs with the cluster) and when people do not honour an area of concern, who do we go to'? (45)
'Cluster-initiated courses/activities are not aligned to school programmes. Thus it becomes an added burden'. (89)
'...if cluster activities are "stand alones", that is, without any integration with school strategic plans, then the activities will lose its value. Teachers will be "unhappy" with the additional activities that do not fit with their school's total plan'. (17)
'More cluster activities are organised and these impose on the school resources and manpower'. (30).

Interview findings support the survey findings above that there is a gap between heads of department's expectations of the role and what is expected of them. Apart from information in the job description which comes with the appointment letter of heads of

department, respondents say they learn about expectations of the role from sources such as official handbooks and departmental heads' meetings. As one respondent says, some of her sources are 'Ministry of Education's (MOE) Handbook for Mathematics heads of department on the Curriculum Planning and Development Division (CPDD) website as well as the CPDD's annual heads of department's meetings' (H1S3). However, the respondents acknowledge that there are also expectations from members of their role set to contend with, for example, 'expectations are also set by the principal and the vice-principal. In addition there are expectations from the cluster superintendent' (H1S5) and 'teachers look up to you and you have to be effective...' (H1S2). In addition 'expectations of parents have become very demanding' (H2S1). Sample comments of respondents are shown in Table 45 below.

Table 45: Expectations (Interview Data)

Excerpts of interviewees' comments
'Ministry of Education's (MOE) Handbook for Mathematics heads of department on the Curriculum Planning and Development Division (CPDD) website as well as the CPDD's annual heads of department's meetings'. (H1S3)
'I did not know the expectations and only became more aware when I got into the role'. (H1S6)
'Expectations are also set by the principal and the vice-principal. In addition there are expectations from the cluster superintendent'. (H1S5)
'Teachers look up to you as and you have to be effective...'. (H1S2)
'Expectations of parents have become very demanding'. (H2S1)

The interview data show that as a result of different expectations from the varied sources mentioned above there is intra-role conflict. For example, heads of department find that

although administration is one of the role functions in the job description, they claim that 'so much' administrative work detracts from management tasks such as monitoring and evaluation. One respondent elaborates that 'there was no close follow up after monitoring and evaluation because of other duties that needed to be done. Administrative work is quite a substantial amount and involves a lot of planning' (H1S6). Table 46 below shows examples of heads of department's comments.

Table 46: Role Conflict (Interview Data)

Excerpts of interviewees' comments
'I did not expect the administration role to be so much e.g. filling up forms for enrichment courses'.   (H1S4)
'I was lacking in terms of monitoring my department members'.   (H1S5)
'There was no close follow up after monitoring and evaluation because of other duties that needed to be done. Administrative work is quite a substantial amount and involves a lot of planning'.   (H1S6)

The interview findings also confirm the survey findings that there is role conflict between cluster activities and school work. As an interviewee points out, 'too many cluster activities – they take focus away from school therefore robbing you of your precious time'   (H1S1) and as 'there are so many cluster programmes therefore we have to plan carefully to avoid clashes' (H1S5) (see Table 37, p.259).

Documentary analysis corroborates the survey findings and the interview findings that there is a conflict between cluster activities and school activities resulting in a strain on resources. For example, minutes of cluster support group (Mathematics) meeting show that there is concern about the viability of conducting cluster enrichment activities which

compete with school programmes for limited resources. This is illustrated by the following extract on the organisation of a 'Maths Trail':

> 'The combined effort of the 5 schools was certainly time saving and cost effective However, the lack of resources in particular the design of the trail will affect the conduct of future trails'. (North Zone Cluster Schools Self-Appraisal Report, Mathematics, 1997. p.2).

In summary, data from all three sources (survey, interview and documentary analysis) confirm that the tensions in the role of heads of department are role strain, role ambiguity and role conflict. Role strain arises from inadequate time and role overload. Responsibilities such as administrative work and cluster work are perceived by the heads of department to be major contributors to the role overload. The findings also show that there is ambiguity surrounding the role of the heads of department largely stemming from a lack of clear definition of the role. In particular, there is a lack of clarity about the extent to which heads of department are expected to be involved in administrative duties, and in cluster activities. As a result of the role ambiguity, heads of department also experience role conflict. The findings show that the major forms of role conflict experienced by the heads of department are inter-role conflict arising from conflicting expectations of their large role sets because of their multiple roles, and intra-role conflict arising from the disparity between the heads of department's own expectations vis-a-vis the expectations of their role sets as well as those demanded by the culture of their schools. The inter-role conflict or conflict between roles is particularly evident between their school priorities and the demands of the cluster. As for intra-role conflict, a case in

point is the inability of heads of department to give due attention to important management tasks such monitoring and evaluation because of considerable administrative duties. It is evident that role conflict has added to the tensions in the role generated by role ambiguity and the strain of lack of time and role overload. The pressure and stress arising from these role tensions are described in the next section.

4.3.4 Pressure and Stress

The survey findings show that the majority of heads of department feel that their role is stressful and pressurising. Survey data show that 50.5% of the heads of department indicate that they feel very pressurized (i.e. to a considerable/very great extent), while 39.4% feel pressurized to 'some' extent. (see Table 33, item 3, p. 256). Correspondingly, the majority of heads of department (i.e. 79.8%) perceive their role to be stressful with 44.4% finding their role very stressful (i.e. to a considerable/every great extent), and 35.4% feeling stressed to some extent. (see Table 33, item 22, p. 256).

The survey open response data show that much of the pressure and stress on the role of heads of department arise from the conflicting demands and 'clashes' between school priorities and cluster demands (see Table 40, p.262). 24.2% of the heads of department respond that the pressure and stress on their role is cluster-related (see Table 11, p. 223). They claim that 'cluster has given stress' (81); 'cluster expectations put pressure on my department's ability to perform and keep on par with cluster expectations' (47); and 'I feel the pressure that my pupils and teachers are expected to perform and achieve rather

than participate and widen learning experiences in the programmes of the cluster' (98).

Heads of department also feel that principals are to blame as they are perceived to be

putting pressure on their schools to perform well in cluster activities. As one head of

department points out, 'principals given charge of the cluster programmes would most

surely want to be the best. This expectation will fall out to HODs in the schools' (98).

This has led to apprehension among the heads of department of the negative impact of

cluster pressures on their teachers. Some of the heads of department share that, 'I find

myself being the "protector" of the teachers in my school, trying not to involve my

school in too many "frills" in the cluster that will kill the teachers' (45); and although

they admit that the 'the culture of learning has improved much from participation in

cluster. However, the price to be paid is burnt-out' (39). Excerpts of heads of

department's responses are shown in Table 47 below.

Table 47: Pressure & Stress (Survey Open Response Data)

Excerpts of Heads of Department's Responses
'...too many last-minute/urgent/compulsory things for which action must be carried out quite suddenly'. (43)
'Cluster has given stress'. (81)
'Cluster expectations put pressure on my department's ability to perform and keep on par with cluster expectations'. (47)
'Principals given charge of the cluster programmes would most surely want to be the best. This expectation will fall out to HODs in the schools'. (98)
'I feel the pressure that my pupils and teachers are expected to perform and achieve rather than participate and widen learning experiences in the programmes of the cluster'. (98)
'I find myself being the "protector" of the teachers in my school, trying not to involve my school in too many "frills" in the cluster that will kill the teachers'. (45)
'There is higher demand on the school to keep up with the schools in the cluster'. (30)
'The culture of learning has improved much from participation in cluster. However, the price to be paid is burnt-out'. (39)

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Interview findings support the survey data that the heads of department's role is stressful and pressurizing with heads of department pointing to increasing responsibilities, parental expectations and clash of demands as adding to the stress. Departmental heads assert that 'the workload is more than what it was 10 years ago; on a scale of 1 to 10, 10 years ago the workload was 2 now it is 8 out of 10. Sometimes you wonder how to cope with it' (H1S5) 'especially when there are any clashes' (H1S2). Also 'expectations of parents have become very demanding' (H1S3) and they '...are dealing with very comprehensive programmes compared to just basic academic programmes years ago' (H1S1). One head of department shares that 'people in my home feel the stress for me...' a sign that the pressure is felt even beyond the school. See Table 48 below for excerpts of the interviewees' comments.

Table 48: Pressure & Stress (Interview Data)

Excerpts of interviewees' comments
'The workload is more than what it was 10 years ago; on a scale of 1 to 10, 10 years ago the workload was 2 now it is 8 out of 10. Sometimes you wonder how to cope with it'. (H1S5)
'We are dealing with very comprehensive programmes compared to just basic academic programmes years ago'.   (H1S1)
'Expectations of parents have become very demanding'.   (H1S3).
'Especially when there are any clashes'.   (H1S2)
'People in my home feel the stress for me as they worry that I don't have time for the family'.   (H1S5)

However, the survey open response data reveal that heads of department have devised coping strategies to manage the stress. On a more positive note, the respondents emphasize that the stress is not throughout the year and that 'certain times it becomes stressful especially at the start of the year, end of the year and peak periods' (H1S1) and

that 'there will be some disruption: otherwise, fine' (H1S4). One respondent says that 'there is no stress except in meeting deadlines - hence it is more of positive stress' (H2S2). Sample comments are shown in Table 49 below.

Table 49: Positive Stress (Interview Data)

Excerpts of interviewees' comments
'Certain times it becomes stressful especially at the start of the year, end of the year and peak periods'. (H1S1)
'There will be some disruption: otherwise, fine'. (H1S4)
'There is no stress except in meeting deadlines – hence it is more of positive stress'. (H2S2)

4.3.5 Role Satisfaction

The impact of pressure and stress on the heads of department's attitude towards the role is analysed in terms of 'role satisfaction' and 'commitment to staying in the role' in this section and the next respectively.

The survey data show that there is role satisfaction among heads of department only to 'some' extent as measured by the mean score of 3.7 for the subscale F5 'Satisfaction' (see Appendix 10: Subscales Means). Survey findings show that 76.8% of heads of department like their work and 83.8% feel that their job makes good use of their abilities to a 'considerable'/'very great' extent) (see Table 50: items 1 & 2, below). However, despite this, heads of department do not feel strongly about staying in the role for a very long time (see Table 50: item 23; Table 51 below). Only 39.4% of the heads of

department surveyed perceive that HODs in their school are very likely (i.e. to a 'very great'/ 'considerable' extent) to remain in the profession for a very long time (see Table 50: item 23).

Table 50: Role Satisfaction (Survey Data)

Item	To a 'Very great'/ 'Considerable' Extent	To 'some' extent	To 'slight'/ 'No' extent
1. I like the type of work I do	76.8%	21.2%	2.0%
2. My job makes good of my abilities	83.8%	16.2%	0.0%
23. Most HODs in my school are likely to remain in this profession for a very long time	39.4%	41.4%	18.2%

4.3.6 Commitment to Role

The survey findings show that there is commitment to staying in the role among heads of department only to 'some' extent as measured by the mean score of 3.8 for the subscale F7 'Commitment' (see Appendix 10: Subscale Means). As mentioned above, only 39.4% of the heads of department surveyed expect that their HOD colleagues are very likely to remain in the profession for a very long time (see Table 50 item 23 above). As for themselves, less than half (i.e. 45.5%) of the heads of department expect to remain in the profession up till retirement or end of their contract while another 18.2% project a medium term horizon of between 10-20 years. At the other end of the spectrum, there are 14.1% and 9.1% of heads of department respectively who see their commitment to the role as between 1-5 years and 5-10 years (see Table 51 below).

Table 51: Commitment to Role

(Item 24) (Survey Data)

I see myself staying in the teaching profession for: Years	%
1-5	14.1
5-10	9.1
10-20	18.2
>20	12.1
up till retirement/up till end of contract	45.5
Total	99.0*

*no response 1.0%

Interview findings confirm the weak staying power among heads of department. Respondents attribute this to a general lack of positive attitude towards the role in the context of a demanding work environment. As one of the respondents explained, 'teaching demands so much more in terms of expectations. But it's not a life and death situation - you need to prioritise which should go first' (H1S1). In support, another said that 'it is challenging' (H1S4). However, the respondents are generally positive with one of them commenting that 'I'm one of the longest serving HODs – 6 years! 'I have taken it positively' (H1S3) while another adds that 'the role suits my personality...I enjoy it' (H1S5). Excerpts from respondents' comments are shown in Table 52 below.

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Table 52: Commitment to Role (Interview Data)

Excerpts of interviewees' comments
'Teaching demands so much more in terms of expectations. But it's not a life and death situation – you need to prioritise which should go first'. (H1S1)
'I'm one of the longest serving HODs – 6 years! 'I have taken it positively'. (H1S3)
'The role suits my personality...I enjoy it'. (H1S5)
'It is challenging'. (H1S4)

In summary, the findings above show that the multi-faceted role of the heads of department is a stressful and pressurizing one brought about by heavy responsibilities, inadequate time role ambiguity and conflicting demands. The different roles that the heads of department play (see pp. 242-255) exert pressure on heads of department to meet expectations of a large and varied role set, but it is the cluster role that emerges as a major source of stress for the heads of department. This finding is consistent with the findings in section 4.3.2 (see pp. 261-263) which reveal that in the absence of a clear definition of the cluster role, cluster activities have become perceived as an additional burden on heads of department coping with role overload and time constraint. As a consequence, the findings show that there is role satisfaction and role commitment among heads of department to some extent only. Although the majority of heads of department like what they do and think their abilities are put to good use, in terms of job commitment less than half (i.e. 45.5%) are committed to the long haul, and almost a quarter are looking at shorter terms of 1-5 yrs and 5-10 yrs.

To conclude Section 4.3: 'Role Tensions', it is evident from the findings that lack of a clear definition of the role, conflicting expectations, as well as role overload and time

constraint are responsible for the tensions in the heads of department's role such as role ambiguity, role conflict as well as role strain respectively. Much of the strain from role overload and time constraint is attributed by heads of department to excessive administrative work and cluster work, two areas of responsibility which are found to be ambiguous as there is a lack of a clear definition about the cluster role as well as the extent to which heads of department are expected to be involved in administrative duties. The ambiguity in the role has resulted in inter-role conflict arising from conflicting expectations of their large role sets, and intra-role conflict arising from the disparity between the heads of department's own expectations vis-a-vis the expectations of their role sets as well as those demanded by the culture of their schools. Inter-role conflict or conflict between roles is evident between their departmental leader role and their whole-school role, and also between their school expectations and cluster demands. Although playing multiple roles put pressure on heads of department to meet expectations of a large and varied role set, it is the cluster role that has been identified as a major source of stress for the heads of department. As for intra-role conflict, heads of department have difficulty giving due attention to important management tasks such as monitoring and evaluation because of considerable administrative duties and the lack of time. The tensions caused by role conflict, role ambiguity as well as the strain from lack of time and role overload have inflicted considerable pressure on heads of department making the multi-faceted role of the heads of department an unenviably stressful one. The pressure and stress on the role of heads of department has impacted negatively on their attitude towards the role in terms of role satisfaction and commitment to the role with heads of department indicating that they enjoy role satisfaction and are committed to their role to only some extent. Hence in spite of the fact that the majority of heads of

department like what they do and think their abilities are put to good use, they are disappointed in their expectations of HODship. Only about half feel that HODship delivered what was expected and more than one third say it failed to do so. Correspondingly, less than half are committed to the role for the long haul, while another one third project a stay of between 10-20 years and about another quarter shorter terms of 1-5 years and 5-10 years.

4.4 Training and Professional Development

The findings on 'Training and Professional Development' are presented in three sections: i) heads of department's competence in carrying out their role, ii) formal training and iii) informal training in the professional development of heads of department.

4.4.1 Competence

The survey findings show that the heads of department are competent to 'some extent' only, as measured by the mean score of 3.0 for the Subscale F2: 'Competence' (See Appendix 10: Subscale Means). The survey data show that only 42.5% of the heads of department surveyed are confident that they have benefited to a 'very great'/ 'considerable' extent, from the training organised by the cluster while another 40.4% feel that they have benefited only to 'some' extent (See Table 53: item 18, p. 278). In terms of their competence in carrying out their leadership role functions such as appraisal of staff, and identification of staff with high potential, survey findings show that only 19.2% and 23.2% of the heads of department indicate that they become more competent

to a 'very great'/ 'considerable' extent in staff appraisal, and identification of staff with

high potential respectively through cluster 'interventions' (see Table 53: items 16 and

17).

Table 53: Competence (Survey Data)

Item	To a 'Very great'/ 'Considerable' Extent	To 'some' extent	To 'slight'/ 'No' extent
16. Through cluster activities I am better able to appraise the staff in my school	19.2	49.5	30.3
17. The cluster has facilitated my identification of staff with high potential	23.2	45.5	30.3
18. I have benefited from the training organized by the cluster	42.5	40.4	16.1

Extracted from Appendix 10: Subscale F2 Competence

However survey open response data show that cluster interventions in the professional

development of heads of department through courses, workshops and seminars, as well

as collegial collaborative activities have helped somewhat in enhancing competence of

heads of department. 36.4% of heads of department indicate in their responses that they

benefit from professional development through cluster collaboration, training and

leadership exposure (see Table 11, p.223). For example, on 'formal' cluster training

through courses and, workshops, heads of department find that 'it helps provide the

necessary training I need as an HOD...' (75) and 'it sharpened my leadership skills and

capabilities' (94) (see Table 56, p. 281); while on more 'informal' learning from

collegial collaboration, heads of department share that '...The exposure has been

invaluable and I learnt a lot. My learning curve is exponential' ((78), and 'although

more time is taken to attend sharing sessions organised at cluster level, the benefits and learning experience have been most invaluable' (86) (see Table 58, p.285).

Interview findings seem to confirm the lack of competence among heads of department. According to the respondents, the lack of formal training to prepare potential heads of department for the role is a contributory factor for the general lack of confidence among newly appointed heads of department. Explaining, a head of department says that 'from teacher to HOD is a big jump as you are handling adults and because there is no real training given for the leadership role, the gap is not bridged' (H1S1). Alluding to his own experience, another head of department shares that 'at the point of appointment I was not confident enough...There is no handholding by a mentor and no training' (H1S4) while another describes being '...thrown into the job and was not confident of how to deliver' (H1S6). Excerpts of interviewees' comments are shown in Table 54 below.

Table 54: Competence (Interview Data)

Excerpts of interviewees' comments
'I was inexperienced at time of appointment'. (H2S2)
'From teacher to HOD is a big jump as you are handling adults and because there is no real training given for the leadership role, the gap is not bridged'. (H1S1)
'At the point of appointment I was not confident enough to take up the position. There is no handholding by a mentor and no training'. (H1S4)
'I was thrown into the job and was not confident of how to deliver'. (H1S6)

4.4.2   Formal Training

i)   Training provided by Ministry of Education

The survey findings show that although formal training is provided by the Ministry of Education for heads of department in the form of a full time, 4-month Diploma in Departmental Management (DDM) course conducted by the National Institute of Education and which all incumbents are expected to undergo, survey data show that only 36.4% of the heads of department in the study have undergone the official course (see Table 3, p. 183). Similarly, interview data reflect a situation of under-training as only three or 37.5% of the heads of department interviewed indicate that they have been trained. The 'trained' heads of department comment that the formal training course boosted their confidence in carrying out the role, but added that they could have benefited more if the course content was less theoretical as 'the core modules of the course are very theoretical compared to the electives' (H1S6).   As one of the respondents shares, 'the head of department's formal training is more on theory which still needs to be implemented and practised'   (H2S1). Excerpts of interviewees' comments are shown in Table 55 below.

Table 55: Formal Training (Interview Data)

Excerpts of interviewees' comments
'The core modules of the course are very theoretical compared to the electives'. (H1S6)
'The head of department's formal training is more on theory which still needs to be implemented and practised'. (H2S1)

ii) Training provided by Cluster

The survey findings show that cluster training also plays a part in enhancing the competence of heads of department. Survey open response data show that 'the cluster provides the training...with other cluster schools' (9) and '...helps provide the necessary training I need as an HOD, for example, People Management skills, SEM writing skills etc'(75) '...through workshops/courses' (69) which are aligned with new educational initiatives to meet the leadership needs of heads of department. Respondents attest that workshops on school appraisal and people management have '... sharpened my leadership skills and capabilities' (94). Excerpts of department heads' responses are shown in Table 56 below. However in spite of cluster intervention in the professional development of heads of department, cluster training has been found to be inadequate in building the capacity of heads of department as presented in Section 4.4.1 (pp.277-279) above.

Table 56: Cluster Training (Survey Open Response Data)

Excerpts of heads of department's comments
'The cluster provides the training...with other cluster schools'.   (9)
'We are...provided with training in the MOE's new initiatives through workshops/courses'. (69)
'It helps provide the necessary training I need as an HOD, for example, People Management skills, SEM writing skills etc'.   (75)
'It sharpened my leadership skills and capabilities'.   (94)

Interview findings corroborate the survey findings that the cluster provides heads of department with 'customised' training which are aligned with new educational initiatives

to meet their leadership needs. As one head of department elaborates, 'there was cluster training for heads of department like appraisal, project management skills, use of high end equipment in science, and research skills to help pupils do research' (H1S2).

4.4.3 Informal training

The findings reveal that informal training plays an equally important part in enhancing the competence of heads of department. Survey findings as well as interview findings show that heads of department have benefited professionally from informal training such as 'learning on the job' and 'collegial collaboration'.

i) Learning on the Job

The findings show that there is a reliance on 'learning on the job' among heads of department. Interview findings show that in the absence of preparatory training for potential heads of department (see Table 54, p. 279) and the slow pace of in-post formal training for serving heads of department (see p. 280), heads of department seem to rely on learning on the job. Relating his experience one head of department says 'I make mistakes and learn how to do the job' (H1S1). Another elaborates that 'the role is an area of specialization which will need experience to get to understand, and it only becomes "visible" as you go along' (H1S5). One reason given for their preference for learning on the job is that 'on the job training is more relevant. Working with other heads of department in joint activities like planning, overseeing a bigger area or group helps raise competency' (H1S3). They also say that on the job learning is beneficial especially for the newly appointed as 'by learning from very experienced heads of department in their

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fields, newer heads of department gain confidence' (H1S4). Excerpts of interviewees'

comments illustrating this are shown in Table 57 below.

Table 57: Learning on the Job (interview Data)

Excerpts of interviewees' comments
'I make mistakes and learn how to do the job'.   (H1S1)
'The role is an area of specialization which will need experience to get to understand, and it only becomes "visible" as you go along'. (H1S5)
'On the job training is more relevant. Working with other heads of department in joint activities like planning, overseeing a bigger area or group helps raise competency'. (H1S3)
'By learning from very experienced heads of department in their fields, newer heads of department gain confidence'.   (H1S4)

ii)   Collegial Collaboration

The findings also show that 'collegial collaboration' within the cluster is another

informal way by which heads of department develop professionally. Cluster structures

such as subject support groups, cluster sub-committees and professional training and

sharing sessions facilitate collegial collaboration among heads of department at cluster

level enabling them to meet, network and share professionally (see Table 14, p. 227 &

Table 21, p. 238).   Survey open response findings show that collegial collaboration

opens up learning opportunities for heads of department and facilitates their

professional growth in many aspects of their role. Acknowledging that 'the culture of

learning has improved much from participation in the cluster' (39), heads of department

relate learning experiences like 'I am able to see things at a macro level, learn from

other schools' experiences and not just be confined to my school's experience' (74),

and that 'more interaction with other HODs in other schools provided greater learning experiences for the role of a HOD. The exposure has been invaluable and I learnt a lot. My learning curve is exponential' (78). They also assert that 'sharing sessions and cluster workshops have provided HODs with more opportunities for insightful learning and acquisition of skills to manage departments' (51). Other heads of department report that they have enhanced their management and administrative skills. For example, they 'learn how other schools administer education policies and deployment of teachers' (2); 'learnt from the experiences of schools. Found out what ideas worked, which are reliable vendors/service providers etc', (55) and '...how other systems work/operate...' (86) as well as 'development of skills and techniques in producing quality papers...' (44). Excerpts of heads of department's responses in Table 58 ('Survey responses' column) below illustrate the impact of 'collegial collaboration' on their professional growth.

Interview findings substantiate the survey findings above that collegial collaboration contributes to departmental heads' professional development. The interview data show that heads of department enhance their management and administrative skills and find their 'competence level risen because of cluster activities' (H1S2). In their view 'collaboration is beneficial as sharing of how schools are run broadens our perspective of the role' (H1S3; it 'gives you more insights into your role...' (H1S6) and they have become '...more aware of expectations of the role through benchmarking of work with heads of department who shared a lot about how they run their departments' (H2S1). Respondents also say that 'because of talking and working with other heads of department we learn about the systems in other schools' (H2S2) and 'I have become

more confident as I am able to network with other heads of department' (H1S5).

Excerpts of heads of department's comments on the benefits of collegial collaboration

are shown in Table 58 ('Interview comments' column) below.

Table 58: Collegial Collaboration & Professional Development
(Survey Open Response & Interview Data)
Excerpts of heads of department's responses/comments

Survey responses	Interview comments
'The culture of learning has improved much from participation in the cluster'. (39)	'Sharing by very experienced HODs in their fields to newer HODs'. (H1S4)
'Although more time is taken to attend sharing sessions organised at cluster level, the benefits and learning experience have been most invaluable'. (86)	'Because of talking and working with other heads of department we learn about the systems in other schools'. (H2S2)
'More interaction with other HODs in other schools provided greater learning experiences for the role of a HOD. The exposure has been invaluable and I learnt a lot. My learning curve is exponential'. (78)	'I am more aware of expectations of the role through benchmarking of work with heads of department who shared a lot about how they run their departments'. (H2S1)
'I am able to see things at a macro level, learn from other schools' experiences and not just be confined to my school's experience'. (74)	'There's more benefit than disadvantage because you work with others and get more ideas...'. (H1S1)
'I feel that by working with the cluster schools, especially with the HODs, I...learn from them in terms of management skills'. (13)	'I have become more confident as I am able to network with other heads of department'. (H1S5)
'Learnt from the experiences of schools. Found out what ideas worked, which are reliable vendors/service providers etc'. (55)	'Collaboration is beneficial as sharing of how schools are run broadens our perspective of the role'. (H1S3)
'We benefited in the development of skills and techniques in producing quality papers...'. (44)	'Competence level risen because of cluster activities'. (H1S2)
'Learn how other schools administer education policies and deployment of teachers'. (2)	'Cluster planning seminar was a good sharing session – could see the big picture'. (H1S3)
'I was able to learn how other systems work/operate as well'. (86)	'Gives you more insights into your role and competency is raised'. (H1S6)
'Sharing sessions and cluster workshops have provided HODs with more opportunities for insightful learning and acquisition of skills to manage departments'. (51)	'At that time, I was not a HOD, but a person comes to surface potential when opportunities are provided for people to show potential'. (H1S5)

Documentary evidence corroborates the survey and interview findings that cluster collaboration benefits heads of department professionally. The findings from minutes of meetings of subject support groups reveal that there was professional sharing on curriculum-related matters such as evaluation of Science CD-ROMs and Science worksheets via the net, infusing thinking kills into science teaching and on data loggers (e.g. Minutes of Science Meeting Cluster Meeting, 1998); IT sharing on the Humanities curriculum (e.g. Minutes of Humanities Department Meeting Cluster Meeting, 1998) and peer tutoring for Mathematics (e.g. Minutes of Meeting Cluster Mathematics Department, 1998).

To sum up, the findings in the section 'training and professional development' show that although formal training as well as informal training are available for the professional development of heads of department, heads of department do not appear to be very confident of their competence in carrying out the role. The formal training provided is for incumbent heads of department in the form of the MOE's full time 4-month Diploma in Departmental Management (DDM) course at the National Institute of Education, but the take-up rate for the course has been found to be slow as reflected by only about one third (i.e. 36.4%) of heads of department in the study sample having been trained at the time of the study. Feedback from heads of department who have been trained show that a weakness of the formal course (i.e. the DDM course) is its rather theoretical content which has been perceived to be less helpful than made out to be for heads of department who have to manage and lead in dynamic and changing contexts. The lack of training to prepare potential heads of department for the role is highlighted as a reason for the general lack of confidence among heads of department new in the role. Focused training

provided by the cluster for serving heads of department have been found to be helpful in enhancing heads of department's competence in carrying out leadership responsibilities such as school appraisal, appraisal and selecting of staff and people management to some extent.

Informal training through 'learning on the job' and 'collegial collaboration' at cluster level has also been found to have a positive impact on heads of department's competence for the role. 'Learning on the job' involving learning from experience in contrast to theoretical learning has been found to be very beneficial for the newly appointed heads of department particularly as they are learning from very experienced heads of department in their fields. Similarly 'collegial collaboration' through cluster subject support group meetings, networking and professional sharing sessions for example, have opened up learning opportunities for the heads of department and improved the culture of learning. Collegiality has boosted heads of department's professional growth as it allows them to share their strengths and improve on weaknesses. Heads of department have gained a wider perspective of their role, developed better communication and people skills and enhanced their management skills; they have also improved administratively. Professional sharing has helped heads of department pick up new ideas and good practices which they are able to customise to their schools' needs and help to raise standards of performance in their schools.

4.5 Conclusion

A composite picture of the role of heads of department in Singapore cluster secondary schools has emerged from a combination of data gathered from survey, interviews and documentary analysis. Guided by the conceptual framework in Chapter 2 (see Figures 9 & 10: pp. 138 & 142) the investigation into the role of heads of department in a school cluster context in Singapore has provided the answers to the following research questions:

1) What is the nature of the work culture in cluster secondary schools?

2) What is the nature of the heads of department's roles in cluster secondary schools?

3) Are heads of department in cluster secondary schools able to cope with all their tasks?

4) Are the training and professional development needs of heads of department in cluster secondary schools met?

(see Chapter 2, pp. 147-148).

In respect of the first question, the study has found that the work culture in the schools is to a great extent shaped by two major factors: the management of the school by the principal and the management of the school cluster by the cluster superintendent. At school level the principal is the key definer of the role of heads of department; the principal establishes the organisational and hierarchical structures, hands down the job descriptions and takes charge of the day-to-day management of the school. However, as a consequence of the *School Cluster* system, the cluster superintendent manages the

school cluster and therefore has the over-riding influence and authority over the principal; this has seen the schools feeling the impact of cluster initiatives/programmes introduced by the cluster superintendent in response to the Ministry of Education's policies and initiatives which are cascaded to schools through collaborative activities such as professional sharing sessions, training programmes and enrichment activities for students. Ministry of Education's policies and initiatives related to the national vision of *Thinking Schools and Learning Nation* (TSLN) which have impacted schools significantly in recent years are the *School Cluster* system; the *School Excellence Model* (SEM) for internal school self appraisal; and the *Enhanced Performance Management System* (EPMS) for performance appraisal in the education service. All these policy changes have wide-ranging implications for school leaders including middle managers. The findings also show that the nature of the work relationship is collegial at departmental level, whole-school level as well as at cluster level indicating a move towards a shared culture in decision making. The findings also reveal that in the 'school cluster' context heads of department perform multiple roles which can be delineated according to levels namely: a teaching role, a department leader role, a whole-school role and a cluster role.

With regard to the second research question, the study has established that the factors which determine to a great extent what heads of department do in their schools are the organisational culture that is, the way the schools are managed at both school as well as cluster levels, the tensions surrounding the role, and the heads of department's competence to perform their role.

In respect of the third question, the findings show that the cluster heads of department have difficulty coping with all their tasks. They face problems of time constraint, excessive workload and role overload, a lack of a clear definition of their role, and conflicting expectations which have resulted in role strain, role ambiguity and role conflict causing them much pressure and stress. This has adversely affected the heads of department's role satisfaction and commitment to staying on in the role, despite the supportive work environment within which they operate, in terms of caring and concerned principals, supportive colleagues and staff and adequate resources.

With regard to the fourth research question, the findings show that the training and professional development needs of heads of department in cluster secondary schools are not adequately met. The heads of department lack the competence in the management and leadership aspects of their role. There is no formal pre-training for the role and the training for incumbent heads of department has lagged behind appointments although formal in-post training is available. It is also found that 'learning on the job'; cluster-based training and collegial collaborative activities at cluster level are viable alternatives for the professional development of heads of department.

CHAPTER 5: ANALYSIS AND DISCUSSION

5.1 Introduction

The findings of the study are analysed and discussed against the backdrop of a largely centralised Singapore education system which, at the time of the study in 2000 has made a noticeable move in the direction of decentralization to inject flexibility into the education system with the introduction of the *School Cluster* system in 1997, and subsequently other initiatives, two of which are the *School Excellence Model* (SEM), and *Enhanced Performance Management System* (EPMS), all under the national vision of *Thinking Schools Learning Nation* (TSLN) umbrella.

1. The *School Cluster* system can be viewed as a management 'device' introduced to group schools into administrative units managed by cluster superintendents. The main features of the *School Cluster* system are autonomy and flexibility as clusters '...operate like autonomous entities...have the flexibility to make certain financial decisions...' and 'greater say in the deployment of teachers within each cluster' (Teo, 1997). The aim of school clusters and devolution is 'not just to achieve administrative excellence. More importantly, it is a way to provide schools with the ability to be more innovative and creative in providing education to their students' (Teo, 1997). According to the Minister for Education:

> 'schools can no longer be managed by a centralized top-down
>
> approach in problem solving and in implementing change. An
>
> approach that depends much more on local initiative with

collaborative local decision-making is needed to spawn new ideas

and initiatives in schools. With greater decentralization of authority

and accountability, and a culture of collaboration, the management

of schools in clusters opens up new possibilities for principals and

teachers to look for creative ways of delivering education to pupils'.

(Teo, 1997)

The result of devolution of decision-making to the cluster level has been that resources

and expertise are used according to the needs of schools and there is greater

responsiveness to the needs of individual schools; principals and teachers have been

enriched by the high level of collaboration among schools and benefited from shared

experiences thereby enhancing the ability of schools to meet the needs of their pupils

(Teo, 1997).

Seen in this context, the *School Cluster* system in Singapore is a major organisational

change which has transformed the way schools used to function. Although each school

is still assessed on its own as an entity, the reality for the school and the people in it

especially the school leaders and the heads of department, is that the *School Cluster*

system has created a larger external environment, comprising all the cluster schools and

the superintendent, which the schools will need to acknowledge and operate within.

The decentralisation of authority and accountability mentioned by the Minister has

implications on the authority structure in the schools; in reality the *School Cluster*

system extends the authority structure beyond the schools to the cluster level giving the

cluster superintendent full authority over all the schools in the cluster. Hence the

School Cluster system has imposed a new culture and structure which is expected to impact significantly the way school leaders and heads of department lead and manage their schools (see Chapter 1, pp. 16-20).

2. The *School Excellence Model* (SEM) for appraisal of schools (Ministry of Education, 2000) (see Appendix 3), replaced 'the external-driven school inspection culture with an internal one in which both processes and results are to be considered', (Gopinathan, 2001, p.12) in 2000. It provides schools with 'a more systematic framework and holistic approach to self-assessment' (Teo, 2002), and involves staff in the process of improvement, thereby increasing the shared vision and ownership of school improvement in their journey towards excellence. As explained by the Minister for Education, 'by measuring both outcomes and processes, and requiring schools to examine their practices not independently, but as parts contributing to a whole, SEM is structured to emphasise holistic education. The SEM requires every school to continuously question its current practices and established norms, and think of more creative and effective ways of delivering the desired outcomes of education' (Teo, 2002). The SEM calls for a systemic approach to achieve excellence which implies alignment of all parts of the school; the culture, processes and resources need to be integrated seamlessly and coherently to support programmes, and programmes to support the school goals which in turn must be shared by all in the school (Ng, 2003). With SEM in place, all schools are now required to carry out a comprehensive, systematic and regular review of processes and outcomes referenced against the SEM in their annual self-appraisal exercise; and external validation becomes an important part of the appraisal process with schools externally validated once every five years (Ministry of Education, 2000, p.7) (see Chapter 2, pp.43-46).

3.   The *Enhanced Performance Management System* (EPMS) (Ministry of Education, 2001) was announced by the Ministry of Education in 2001 as a component of the national policy initiative called the *Education Service Professional Development and Career Plan* (Edu-Pac). The EduPac's two other components are: i) a new career structure aimed at providing a challenging and enriching career with three career paths or fields of excellence: Teaching Track, Leadership Track (which heads of department are on), and Senior Specialist Track; ii) a new recognition structure which establishes a strong link between pay and performance.

The (EPMS) is an enhancement of the previous system with its emphasis on management capability, in that it is a competency-based model which defines the knowledge, skills and traits appropriate for each career track or field of excellence. EPMS is 'the glue that binds the other two components of Edu-Pac. It will provide greater clarity in terms of the link between pay and performance as well as career progression along the different career tracks' (Teo, 2001, p. 7). Essentially with EPMS, appraisal of officers will be more customised to the role that they play and for school leaders, greater emphasis will be given to their ability to provide visionary leadership (Teo, 2002).   The SEM and EPMS are '...two important instruments for aligning practices and behaviours with our ability-driven paradigm' (Teo, 2002, p.2).

With the EPMS heads of department will have a more challenging role to play in the appraisal of departmental staff as line managers in the hierarchical organisational structure of their schools. As the Minister for Education has stated, the challenge which school leaders including heads of department face is to operationalise EPMS in a nurturing and supportive environment so that teachers will find satisfaction in their

chosen vocation. This is a heavy responsibility which they carry in the Ministry's investment in a high quality education service that will prepare the nation's children for the future (Teo, 2001). The Edu-Pac underscores the important task of heads of department, vice-principals and principals as the senior education officers in the education service to create an environment which is nurturing, supportive and satisfying for all teachers. EPMS is scheduled for implementation in 2003 for appraisal of officers on the Leadership Track, that is school leaders and heads of department, and of teachers in 2005 (Ministry of Education, 2002) (see Chapter 2, pp. 46-50).

This in short, is the Singapore educational landscape which served as the backdrop against which the study was carried out. The heads of department's role is analysed in this study within a particular cluster and its changed dynamics.

The findings presented in Chapter 4 show that an implication of the *School Cluster* concept in the Singapore context is that what goes on in the work environment is subject to influences not only from the internal/school context but also from the external/cluster context. In the internal/school context the key influence is the principal while the prime mover in the external/cluster context is the cluster superintendent. As the schools in which the heads of departments work belong to a school cluster, contextually their role is influenced not only by how the schools are managed by the principal in the school context but also by the cluster superintendent in the external context. The findings indicate that the *School Cluster* system has imposed changes in the way schools operate and on the roles played by schools leaders. As a result, the role of heads of department in Singapore schools has widened considerably in terms of its scope, and the tensions surrounding the role. Following the implementation of the

School Cluster system, other educational initiatives introduced under the national vision of *Thinking Schools Learning Nation* (TSLN) have also made the role an increasingly challenging one, demanding a higher level of leadership competencies. The findings based on the themes of 'work culture'; role tensions'; and 'training and professional development'; and their implications are discussed below.

5.2   Work Culture

a) Internal & External Influences

As has been mentioned above, the work culture in Singapore schools is shaped by both external and internal influences of the cluster superintendent and the principal respectively.   The principal influences the day-to-day administration of the school as seen in the establishment of structures and frameworks.   In Singapore schools the authority structure is traditionally hierarchical, emphasising the importance of line management and roles are generally defined by job descriptions. However the clustering of schools for administrative excellence under the *School Cluster* system has implied the extension of the hierarchical authority structure beyond the schools to the cluster superintendent and heads of department now answer not only to their principals and vice-principals as indicated in the organisational chart but also to the cluster superintendent. This has enlarged their role set as there are now cluster expectations and demands to be met. Furthermore with the *School Cluster* system in place, national policy changes and initiatives in education such as those concerning school appraisal and performance management under the *Thinking Schools Learning Nation* (TSLN) framework (see Chapter 1, p. 8; Chapter 2, pp. 40-49) are channelled through the

cluster superintendent to the cluster schools for faster response and schools now respond to the cluster superintendent instead of the Ministry of Education (see Chapter 1, pp. 16-20). This is shown in the flow chart in Figure 14 below.

Figure 14: External/Cluster Influence on Internal/School Context
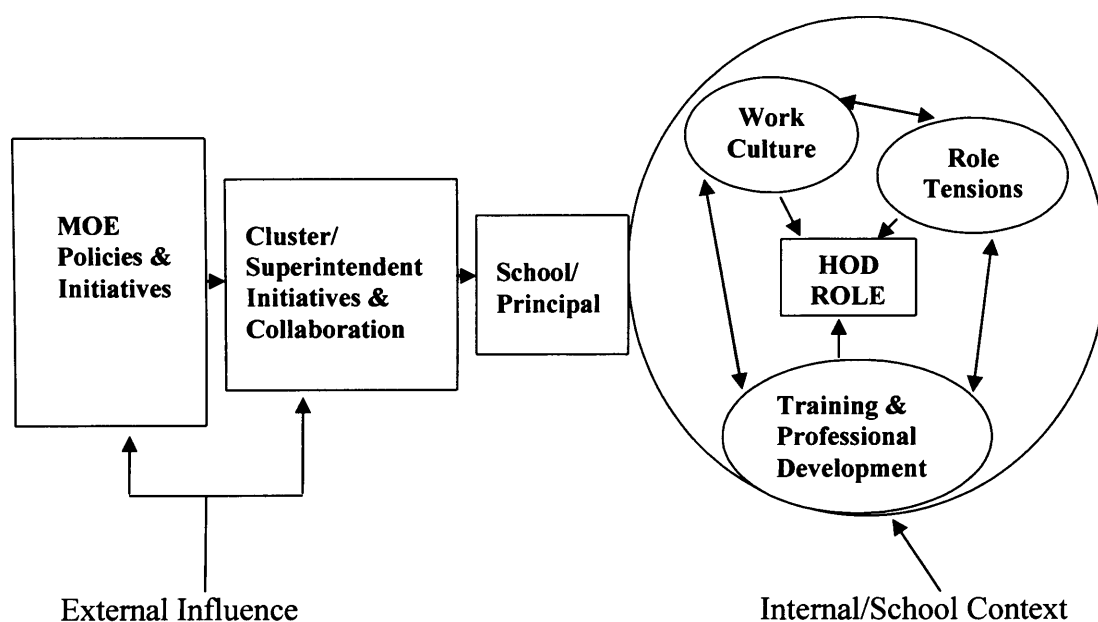
Figure 14 shows that in Singapore, the Ministry of Education's (MOE) policy changes and initiatives are directed to schools through the cluster superintendent who then decides as to the responses, unlike previously when directives went directly to the schools. For instance, the findings show that the cluster initiated customised training

for school leaders including heads of department in the use of the SEM to prepare them for the implementation of the new internal self-appraisal tool in schools in 2000. Furthermore, when the Ministry of Education's Edu-Pac package for the education service was announced in 2001, cluster training was mounted for school leaders including heads of department on the EPMS a component of the Edu-Pac package, in preparation for its use for performance appraisal of school leaders in 2003 and for teachers' performance appraisal in 2005. Another example is the cluster superintendent's response to the MOE's expectation of a collaborative culture evolving from the *School Cluster* system, by initiating collaborative activities at cluster level for principals, vice-principals and heads of department.

b) Work Relationships

The findings show that a collegial work culture prevails in the school context as well as at cluster level. Firstly, participative decision-making is practised at whole-school management level by the school management team: the School Management Committee/School Executive Committee (SMC/SEC), comprising principals, vice-principals and heads of department. The school management team has key responsibilities such as setting organisational vision and direction, and strategic planning as described in the SEM and the EPMS. There is a collegial inter-departmental work relationship among heads of department involved in whole-school decision-making on administrative matters such as time-tabling and examination schedules, staff deployment and utilisation of facilities and resources.

Secondly, at departmental level there is also a collegial intra-departmental work

relationship. Heads of department have established departmental teams along subject lines, reflecting the value of teamwork in working towards shared educational outcomes. This is an indication that they acknowledge that team building is an important part of their role and reflects their effort in sustaining a collegial culture of their subject area. The majority of heads of department see their principals as approachable, understanding, and supportive in terms of resources for them to carry out their role.

Thirdly, the collegial work culture extends to the cluster level as reflected in the culture of collaboration. Collegial collaboration is evident at the Cluster Board level, cluster committees, subject support groups and professional sharing. The creation of a collegial cluster culture reflects the support given by the cluster superintendent for heads of department of different schools to share in the wider decision-making process of the cluster towards school improvement. The team or collegial approach to school improvement is evident in networking and professional sharing among heads of department as members of cluster subject support groups led by principals/vice-principals of the cluster schools under the supervision of the cluster superintendent. Through networking and professional sharing sessions, the heads of department have benefited mutually from exchange of ideas, sharing of best practices, and benchmarking. Cluster funds are also used to support training and professional development of key personnel (principals, vice-principals and heads of department), and provide resources for the schools and special enrichment programmes for students. This appears to confirm the MOE's expectation that the cluster objective of devolving greater autonomy to schools in key areas would reap benefits through pooling of expertise and resources, and that the devolution of decision-making to the cluster level

allows deployment of resources and expertise according to member schools' needs (see Chapter 1, pp. 17-19).

In summary, the collegial work culture in the school environment as illustrated by i) heads of department working with departmental members in subject teams, ii) participative decision-making at whole school level involving principals, vice-principals and heads of department as the school leadership/management team, and iii) a culture of collaboration at cluster level, indicates that there is a move towards a shared culture in cluster schools in Singapore.

c) Roles Performed by Heads of Department

The findings show that heads of department in cluster schools in Singapore perform multiple roles. These include i) a classroom role which requires them to teach the equivalent of two-thirds of a normal teacher's workload, ii) a departmental role, iii) a whole-school role and iv) a cluster role (see Chapter 4, p. 242). The departmental role involves a whole spectrum of management functions ranging from leading teams, conceptualisation and planning, monitoring and evaluation, developing staff, and administration, to advising the principal on professional matters (see Chapter 1, pp. 13-14; Chapter 4, pp. 244-250). The whole-school role is reflected in their responsibilities as part of the school leadership/management team. Heads of department together with their principals and vice-principals as the school executive committee or school management committee (SEC/SMC) are responsible for whole-decision making on matters such as, envisioning, setting focus and direction and strategic planning, executing of school policies as well as performance appraisal and ranking. Their whole-

school role facilitates the cascading down of school goals and strategic initiatives to departmental members for suitable programmes to be drawn up and implemented to achieve these goals. This aspect of the heads of department's role underscores the importance of their whole-school role in understanding the link between school goals and departmental objectives and ensuring that departmental beliefs, values and priorities are integrated with that of the whole school (see Chapter 4, pp. 250-252).

The heads of department's cluster role evolved from the culture of collaboration in the cluster as their involvement in collegial cluster activities inadvertently expanded their role to include a 'cluster' dimension. At the cluster level, they work collaboratively with heads of department from the other cluster schools in subject support groups and cluster committees led by principals/vice-principals under the supervision of the cluster superintendent, to raise the standard of performance of their schools through professional sharing and training (see Chapter 4, pp. 252-254).

As the findings show, schools generally use the standard job description provided by the MOE to define the role of heads of department. This has given rise to role ambiguity as it is found that the job description does not provide a comprehensive coverage of all the work expected of heads of department, one of which is cluster work. Role ambiguity also leads to other role tensions which are discussed below.

5.3   Role Tensions

As mentioned in the preceding section, heads of department in Singapore cluster schools perform multiple roles. These roles translate into a complexity of role

functions giving rise to role tensions and generating much pressure and stress for them. As a result, although the majority of heads of department indicate a liking for their role, less than half of them express considerable or very great role satisfaction or very long term commitment to it (see Chapter 4, pp. 272-275). The role tensions arise from excessive workload, role overload and corresponding time constraint, an unclear role definition, and conflicting expectations from numerous role sets resulting in role strain, role ambiguity and role conflict respectively.

Although there is evidence of stress management efforts on the part of heads of department such as prioritising their tasks and maintaining a positive stance, lack of time appears to be a major predicament for the heads of department. Inadequate time has resulted in some tasks taking priority over others such as administration over management tasks like monitoring and evaluation. Lack of time inhibits heads of department from carrying out effective monitoring and evaluation which is part and parcel of their line management role as reporting officers (RO) of their teachers to supervise and appraise their work (see Chapter 4, pp. 246-248). Lack of time also puts pressure on heads of department to prioritise between demands of school on the one hand, and cluster demands on the other and role strain is evident when they have to put cluster work over their school work in the event of clashes. This has negated somewhat the benefits of cluster collaboration and given rise to apprehension of potential teacher burn-out from excessive cluster demands and doubts about the relevance and value of the collaborative activities among the heads of department (see Chapter 4, pp. 264-265; 269-271). Lack of time also hampers the heads of department's commitment to building relationships among colleagues although they acknowledge that building departmental culture is an important task (see Chapter 4, Table 37: 'Work

relationships' column, p. 259). Hence the problem of time constraint underscores the importance of looking into reducing the workload of heads of department.

The findings also show that role ambiguity exists as the role of heads of department is inadequately defined owing to a job description that does not comprehensively cover all their responsibilities particularly their cluster role. Action however, has since been taken to account for the cluster aspect of the departmental head's role as the EPMS now defines the cluster role under Leadership competencies of heads of department in two areas: 'Strategic Planning & Administration' and 'Professional Development'. However it remains to be seen whether two brief statements defining the cluster role are sufficient to describe the wide scope of cluster work (see Chapter 4, Table 31, p. 254).

Heads of department also experience role conflict as having to cope with four levels of role in the Singapore school cluster context inevitably subjects them to wide-ranging demands and expectations from numerous role sets such as, the Ministry of Education, the cluster superintendent representing the external context, and the principal, vice-principal as well as teachers and students, the school context. This has necessitated having to switch roles continually to successfully manage their middle leadership functions of bridging/brokering and mediation, and liaison or advocacy; and to balance between transformational leadership and transactional leadership to help their staff manage changing external demands, a situation which has proved pressuring and stressful for the heads of department.

Cluster heads of department in Singapore not only operate at the organisational level to convert the school's broad aims and long-term plans into medium-term objectives as

described by Bell (2003), they also operate at the strategic level with the principal and vice-principal in translating the vision into these broad aims and long-term plans as evident in their whole-school role (see Chapter 4, pp.250-252). Furthermore, in their cluster role, heads of department face the challenge of convincing their teachers to buy into cluster initiatives, especially to accept and/or support the 'unpopular' initiatives, although their apprehension is that oversubscribing to them may adversely affect their teachers' well-being. Hence role conflict between their departmental role and whole-school role, and between their school roles (i.e. departmental and whole-school) and their cluster role reflects the dilemma of their 'middleness' as on the one hand, their strategic role as part of the school leadership/management team translates into representing the interests of the principal/school management and also the cluster/superintendent and to filtering down their expectations, while, on the other hand, they perceive their responsibility as departmental/subject leader is to be the 'protector' of their teachers from the pressures of excessive demands particularly external cluster demands so as to ward off burn-out, and to present their teachers' concerns upwards for example to the cluster/superintendent level (see Chapter 4, pp. 264-265; 269-271).

The tensions surrounding the heads of department's role seem to suggest that although there is evidence of a move towards a shared culture in Singapore schools (pp. 298-300), the schools are not quite there yet and that more needs to be done to integrate the culture, processes and resources of the schools and to align the practices within the departments and at whole-school level so that they all move towards shared goals of the school. This means adopting a more systemic or integrative approach to the management of schools to ensure that all parts of the school are aligned as implied in the *School Excellence Model* (SEM), the current tool for internal self-appraisal of schools (see Chapter 2, pp.

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43-46). As Ng (2003), writing on the implications of the SEM points out, the interdependent nature of school functions emphasises the importance of examining school practices and problems in a systemic and integrative manner as 'the performance of the entire school as a system depends increasingly on how the departments fit into a bigger picture, not just on how they perform separately' (p. 32) (see Chapter 2, p. 45). The importance of all parts of the school working together is also emphasised by Bell (2003) as he argues that for the school goals to be achieved, the three levels of leadership and management in the school i.e. the principal at the strategic level, the heads of department at the organisational level, and the teachers at the operational level 'must work in harmony' (p.95) as they are mutually interdependent (see Chapter 1, p. 24). Similarly an integrated approach for school improvement is advocated by Crowther *et al* (2002) who argue that for school vision and classroom practices to be aligned, principals and teachers must '...engage in collective action to build school capacity' (p. 38) a process which they term 'parallel leadership' (see Chapter 1, pp. 24-25).

However in the cluster context, there is also a need to extend the integration of processes and functions to the cluster level as the apparent role conflict between departmental and school roles on the one hand, and heads of department's cluster role on the other, also makes it necessary for the individual schools to fit into the bigger cluster picture therefore implying a need to also align departmental, school and cluster objectives so that cluster activities in particular, are seen as complementing school programmes and not an extra burden as perceived by the heads of department (see Chapter 4, Table 44 , p. 265). As the findings show, the heads of department are positive about the collegial collaboration at cluster level as it provides opportunities for networking, benchmarking and professional sharing which help raise their schools' performance; it also provides a

platform for promising heads of department deemed to have 'high potential' for leadership positions to gain wider exposure and enhance their leadership capability through cluster activities and to be 'identified' by the superintendent in collaboration with cluster principals, as part of the leadership 'grooming' process. However, it is also evident that they have reservations about the collaborative activities as their perception that they are 'serving' the cluster and supporting the superintendent's ideas (see Chapter 4, Table 40, p. 262) seems to suggest that they perceive that change is only in the labels and that the cluster has taken over from the MOE.

Thus, despite evidence that a collegial work culture exists in the cluster, it is less certain that heads of department (and maybe even their school leaders) understand the objective/s of collegial collaboration and are tuned into the intent of the *School Cluster* concept which as explained by the Minister for Education is to allow schools' autonomy to manage themselves and 'no longer be managed by a centralised top-down approach in problem-solving and in implementing change' (Teo, 1997, p. 2) and through greater decentralisation of authority and accountability, and a culture of collaboration, open up 'new possibilities for principals and teachers to look for creative ways of delivering education to pupils' (Teo, 1997, p. 2) (see Chapter 1, pp. 18-19).

The implication for school management is therefore a need to reduce the ambiguity surrounding the heads of department's role by defining more clearly the role functions particularly at the cluster level and the challenge for the cluster superintendent as well as principals is to ensure that there is a shared vision and culture which is subscribed to not only by school leaders but by heads of department and their teachers thereby discouraging comments from heads of department such as: '...looks like schools are

supporting superintendent's ideas' (see Chapter 4, Table 40, p. 262); 'I find it frustrating that our concerns are different (that is, HODs with the cluster)...'; and cluster work is 'more work' and an 'added burden' (see Chapter 4, Table 44, p. 265).

5.4 Training and Professional Development

The findings show that there is inadequate training and professional development for heads of department in terms of preparing them for the role as well as in-post training for incumbents. It is found that close to two-thirds (63.6%) of the heads of department in the study in 2000 have yet to undergo the full-time Diploma in Departmental Management (DDM) course provided by the MOE (see Table 3, p. 183), a somewhat alarming figure which is cause for concern as heads of department generally come from the teaching rank and file and would need to be equipped with the leadership and management skills for the role. The finding underscores the urgent need to accelerate the training needs of heads of department and raises questions about the effectiveness of the staff management programmes in Singapore schools particularly on how the schools are developing and utilising the full potential of their staff to achieve the desired educational outcomes; it calls into question the importance schools attach to the course mentioned above and whether schools place priority on freeing up time for key staff to go for the training. It could well be that schools are reluctant or unable to release their departmental heads for the training because of time constraint and the need to offload the duties of the attendees either laterally among other departmental heads or downwards, to the 'second' or 'third' echelon in the department or other departments, for the duration of the full-time course which is currently four months.

The lack of competence among Singapore heads of department for the role also has implications on the capacity of heads of department to lead. This is especially important in the light of new demands and increasing expectations on the role of heads of department stemming from recent educational reforms and initiatives supporting the national vision of *Thinking Schools Learning Nation* (TSLN) (see Chapter 1, pp. 6-8). These educational reforms such as the *School Cluster* system and the introduction of two important instruments to assess schools and performance of education officers, namely the *School Excellence Model* (SEM) and the *Enhanced Performance Management System* (EPMS) respectively, have raised expectations of the role of heads of department as middle managers in schools and placed emphasis on a higher level of leadership expected of them at whole-school as well as cluster levels, for as one head of department rightly states they are no longer just leaders of their subject departments but are expected to function 'school-wide' and 'multi-task in the cluster'(see Chapter 4, Table 34, p. 257). As implied in the SEM, heads of department together with their principals and vice-principals make up the school leadership team which is expected to provide what Ng (2003) describes as 'great leadership' (see Chapter 2, p. 45). As such, the implication is that there is an urgent need for heads of department to develop leadership competencies in tune with those defined in the EPMS, and for the schools to view as critical, the development of heads of department to enhance their leadership capability so as to dispel the notion put forth by Ng (2003) that 'many schools appear to be over-managed and under-led' (p. 35). Based on the findings a more comprehensive training and professional development programme for heads of department could incorporate a combination of formal training provided by the Ministry of Education, customised training by the cluster, and informal 'training' such as learning on the job, learning from peers, handholding, mentoring and coaching as well as professional development

through collegial collaboration.

The findings show that cluster intervention in building the capacity of the heads of department in Singapore schools has been in response to the demands and expectations of TSLN initiatives such as, the *School Excellence Model* (SEM) and the *Enhanced Performance Management System* (EPMS) through customised training tailored for school leaders including heads of department. In terms of its timeliness and specificity, cluster training has proved beneficial to heads of department in equipping them with the knowledge and the skills to implement new systems such as the SEM and the EPMS. SEM training has enabled heads of department to conduct comprehensive, systematic and regular review of their schools' processes and outcomes using a more systematic framework and holistic, fact-based approach in the self-assessment of their schools since 2000. EPMS training which followed in the footsteps of the SEM training has helped to familiarise school leaders including heads of department with the competencies essential for the different career tracks in the education service, particularly the Leadership and Teaching Tracks and to prepare them for being assessed using the EPMS in 2003 and to assess their teachers in 2005 (see Chapter 2, pp. 47-49; Chapter 4, pp.246-249).

'Learning on the job' is how heads of department, who were 'thrown into the job', gain experience in handling their role. The findings indicate that 'learning on the job' is perceived to be more useful than the formal DDM course which is described as theoretically-slanted and therefore not very practical (Chapter 4, Table 55, p. 280; Table 57, p. 283). This provides a new perspective on 'learning on the job' as an alternative and practical way to develop heads of department professionally.

Collegial collaboration initiated by the cluster has been found to enhance heads of department's professional development through subject support groups, networking and professional sharing among heads of department with same subject or management interests within the cluster (see Chapter 4, Table 21, p. 238; Table 22, p. 240; Table 58, p. 285). Heads of department who have the 'privilege' to work within a wider context of school leaders such as heads of department, vice-principals and principals from the different cluster schools under the supervision of the cluster superintendent indicate that they have become more confident in handling their role (see Chapter 4, Table 14, p. 227).

Looking forward, in the context of the Singapore education system, the training and professional development programmes mounted for heads of department will need to focus on leadership skills that match the competencies and behaviours expected of school leaders on the Leadership Track of the EPMS. This is necessary as the EPMS customises appraisal of education officers to the role they play (Chapter 2, p. 47) by spelling out competencies for each role in the form of key result areas (KRAs). It places greater emphasis on visionary leadership by heads of department (and school leaders) in addition to other responsibilities such as developing people, management of processes, and management of resources (see Chapter 4, Table 26, p. 248). For the EPMS to be employed effectively in helping officers reflect on their capabilities and chart their own professional development as it is designed to do, the supervisor's role to coach subordinates is explicitly highlighted in the overview of the EPMS by the Permanent Secretary, Ministry of Education, Chiang Chie Foo, quoted in Chapter 2, p. 48 and reproduced below:

'one of the key elements in the EPMS is the need for regular

coaching and feedback. Reporting Officers play an important role in helping their teachers know how they are progressing, and in encouraging them to do better. Personal commitment is a critical aspect in the development of their competencies and teachers should work closely with our supervisors to identify the areas, that we need development and training in '.

(Ministry of Education, 2002, p. 1)

As explained by the Minister for Education, to achieve the expectations of the Ministry of Education (MOE) that all schools and officers look long-term and develop pupils holistically, the SEM and EPMS are assessment tools which have been designed:

'...to encourage and reinforce behaviours and outcomes that we value. SEM and EPMS are two important instruments for aligning practices and behaviours with our ability-driven paradigm'.

(Teo, 2002, p.2) (see Chapter 2, p. 48)

5.5   Conclusion

From the findings it can be concluded that what heads of department do that is, what their role entails, is dependent on the context in which they work. How heads of department perform their role is contingent on their work environment and the key factor in the work environment is the culture, as reflected in the way the organisation is

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managed. The management of the schools influences the role functions of heads of department, the nature of the environment they perform in, the nature of the role tensions they face and the training and professional development they receive to meet expectations of the role.

Similarities in certain aspects of the role of heads of department in the cluster schools and that of heads of department in UK schools have been identified. In relation to the work culture, the similarities relate to the organisational structure of the schools in which the heads of department work. Singapore heads of department work in schools which are hierarchically structured and emphasise line management responsibility which requires heads of department to supervise and appraise their staff. The structures and frameworks for the day-to-day running of the school are established by the principal and there is a dependence on the job description to define the role of heads of department.

The literature provides evidence of similar work environments in UK schools (see Chapter 2, p. 91) where the hierarchical organisational structures generally make collegiality difficult to achieve as most decision making is done by the people at the higher levels of the hierarchy by virtue of their status. For example, the NFER study (Earley and Fletcher-Campbell, 1989) finds that heads of department feel duty-bound to make most of the decisions and teachers feel that it is the duty of middle managers to handle the decision making. Bennett (1999) mentions that the TTA's requirement of line management accountability for subject leaders on the one hand, and promotion of collegiality and teamwork on the other, create confusion in the area of decision making and Brown *et al*'s (1999) study reports that subject leaders want bureaucratic

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approaches to leadership to be replaced by distributed leadership (see Chapter 2, p.92). However due to the culture specificity of the contexts in which the heads of department work, differences can be identified between the heads of department's role in Singapore and that in the UK.

As the *School Cluster* concept implies, contextually the heads of department's role in Singapore is influenced not only by how the schools are managed by the principals in the school context but also externally by the cluster superintendent. Since 1997, educational policy changes and initiatives under the national vision of *Thinking Schools Learning Nation* (TSLN) (see Chapter 1, pp.6-8; Chapter 2, pp. 40-49) have been 'imposed' on schools through the cluster superintendent for action and schools respond to the cluster superintendent instead of the Ministry of Education.

Under the *School Cluster* system, itself an initiative under the *Thinking Schools Learning Nation* (TSLN) umbrella, the heads of department's role has expanded. When compared with their UK counterparts' 'dual role' of teacher and manager mentioned by Wise and Bush (1999) (see Chapter 2, p. 126) or the 'traditional role' of manager and administrator described by Glover and Miller (1999) (see Chapter 2, p. 129) the role of the heads of department in cluster schools appears to be larger in scope. In addition to their classroom role which translates into teaching two-thirds of a teacher's load, their departmental/subject leader role, and a whole-school role which heads of department in UK schools also perform in varying degrees, they now have to perform a cluster role which involves collegial collaboration at cluster level.

In the cluster schools, there is evidence of a move towards a shared culture within the schools as well as at cluster level. There is evidence of a collegial work relationship; and participative decision-making is practised at departmental, whole-school and cluster levels. At departmental level heads of department have developed a team culture with department members working in teams. This emphasis on shared decision-making at departmental level reflects the important dimension of the heads of department's work of fostering departmental collegiality by shaping and managing departmental culture mentioned by various writers (e.g. Harris et al, 1995; Harris, 1998; Turner, 1998, 2003; Busher and Harris, 1999) (see Chapter 2, pp. 87-91). In the cluster schools, at school level, participative decision-making is practised by the school leadership/management team i.e. the School Executive Committee or School Management Committee (SEC/SMC) comprising the principal, vice-principal and the heads of department in their whole-school role. This finding contrasts with empirical findings for example, Brown et al, (2000) that distributed leadership or shared power among senior and middle managers in UK schools is still rhetoric rather than practice (see Chapter 2, p. 92); and Brown & Rutherford (1998) that heads of department are reluctant to be involved in whole-school issues (see Chapter 2, p. 91). This aspect of the heads of department's role in cluster schools underscores the importance of their whole-school role in ensuring that departmental vision and values are aligned to whole-school vision and values and reflects Brown *et al*'s (2000) finding that in some UK schools, heads of department who are members of the SMT have greater understanding and appreciation of the link between whole school issues and departmental issues (see Chapter 2, p. 92). At cluster level, collegiality is evident in the culture of collaboration. Participative decision-making is apparent in the work of the Cluster Board comprising the cluster superintendent and principals of the schools in the cluster, as well as the

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collegial collaboration among heads of department in cluster committees, subject support groups, professional sharing, and enrichment activities for students led by principals/vice-principals.

The findings show that the heads of department in Singapore operate in pressurising and stressful work environments. The multiple roles which cluster heads of department have to perform have led to problems of excessive workload, role overload and time constraint resulting in pressure and stress from role strain. They also result in tensions such as role ambiguity and role conflict. As has been mentioned above (see p. 313), the heads of department's role in cluster schools has been transformed owing largely to external challenges and demands since the late 1990s associated with the national vision of *Thinking Schools Learning Nation* (TSLN). Similarly, the empirical literature (e.g. Turner, 1996; Glover and Miller, 1999; Wise & Bush, 1999; Brown et al, 2000; Adey, 2000; Brown *et al*, 2000; Busher, 2001; Turner, 2003) reveal that the heads of department's role in UK schools is a multifaceted and stress-filled role, fraught with tensions of leading from the middle (see Chapter 2, p. 125), and the role has undergone changes during the last decade marked by increased pressures and stresses from external demands, increased workload and lack of time (e.g. Turner, 1996; Glover *et al*, 1998; Glover and Miller, 1999; Wise & Bush, 1999; Brown et al, 2000; Turner, 2003) (see Chapter 2, pp. 125-127). However while whole-school responsibilities emerge as one of the main factors accounting for the increased pressures and stresses from role strain for UK heads of department as the empirical literature (e.g. Glover *et al*, 1998; Glover and Miller, 1999; Adey, 2000) show (see Chapter 2, pp.126-127), in the case of Singapore cluster heads of department, much of the role strain is found to be from external pressures related to cluster activities. This stems from the uniqueness and

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culture specificity of the school cluster context which imposes additional pressure and stress on the role of heads of department from external demands and expectations of the cluster superintendent managing the school cluster that they belong to.

Inadequate time to complete all their tasks has been found to be a major problem for Singapore cluster heads of department whose scope of work has been enlarged with the addition of the cluster role. Lack of time is also the predicament of UK heads of department. For example, the literature (e.g. Brown *et al*, 2000) has shown that new roles and additional responsibilities given to heads of department such as whole-school management tasks are not matched with adequate time and results in role strain. As has been pointed out 'time constraint still hampers the successful implementation of change' (Glover and Miller, 1999, p. 55) (see Chapter 2, pp. 126-128).

Constraints of time also impact other role functions of Singapore cluster heads of department. For example, although it is found that cluster heads of department carry out monitoring and evaluation as one of their key management responsibilities and their line management role of reporting officers (RO) for their teachers, excessive administrative duties deprive them of valuable time to carry out quality monitoring and evaluation. This reflects empirical evidence in the literature (e.g. Glover *et al*, 1998) that middle management roles in UK schools are defined in terms of predominantly administrative tasks (see Chapter 2, p.130), and that monitoring and evaluation tasks are accorded low priority or neglected (e.g. Earley and Fletcher-Campbell, 1989; Glover *et al*, 1998; and Glover and Miller, 1999) (see Chapter 2, pp. 130-131). The cluster departmental heads' situation is similar to that described in Wise and Bush's (1999) study where heads of department have accepted monitoring and evaluation as a central part of their role but

need support to carry it out (see Chapter 2, p. 131) rather than that reported in other researches (e.g. Ribbins, 1988; Earley and Fletcher-Campbell, 1989; Glover *et al*, 1998) that heads of department generally dislike mmonitoring and evaluation (see Chapter 2, pp. 130-131).

Heads of department in cluster schools also experience role ambiguity like their counterparts in the UK, as job descriptions which they depend on to define their role are inadequate in defining the full extent of the heads of department's responsibilities thus giving rise to conflicting expectations and role conflict. Of particular concern to heads of department is the ambiguity surrounding their cluster role. The empirical literature (e.g. Earley and Fletcher-Campbell, 1989; Glover *et al*, 1998; Wise and Busher, 2001), also provides evidence that middle managers tasked with multiple roles experience role ambiguity as well as role conflict in UK schools (see Chapter 2, pp. 128-134). Role ambiguity is a problem especially for teachers who assume management positions without adequate preparation and are unsure of what is expected in the role (Peeke, 1983; Bennett, 1995; Hall, 1997) as there are conflicting interpretations of the role and job descriptions which are inadequate (Earley and Fletcher-Campbell, 1989; Smith, 1996b); and hierarchical distinctions in schools which are not neatly delineated particularly between middle management and senior management (Glover *et al*, 1998; Wise and Busher, 2001). Although it has been pointed out that the dynamic nature of the subject heads' role resulting from the demands and expectations of their diverse role sets, and the potential complexity of the role make role definition difficult (Wise & Busher, 2001) (see chapter 2, p. 128), calls for a clearer definition of the heads of department's role (e.g. Kottkamp and Mansfield. 1985; Adey and Jones, 1998; Wise and Busher, 2001) underscore the urgency of the

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problem (see Chapter 2, p. 129). Similarly, there is also a need in the Singapore context for clearer expectations about leadership at middle management level and a clearer definition of the cluster heads of department's role.

The multiple roles that cluster heads of department have to perform have resulted in 'inter-role' conflict i.e. conflict between the different roles as they face competing demands or expectations at different levels of role; and 'conflict within role'. As has been mentioned, in the internal/school context, heads of department have to meet the expectations of the principal as well as the expectations from significant others in their role sets such as departmental teachers and fellow heads of department. In addition, as their schools function within the wider cluster context, there is also the need to meet the cluster/superintendent's expectations in relation to cluster collaboration (see pp. 296-297). Examples of 'inter-role conflict' are evident firstly between the heads of department's departmental role and whole-school role and secondly between their cluster responsibilities and their school responsibilities. On the other hand, 'conflict within role' can be seen in the heads of department's administrative task versus monitoring and evaluation.

Similarly, the empirical literature also reveals that conflicting demands and expectations of the heads of department's diverse role sets give rise to role conflict. For example the tensions between administration and monitoring and evaluation have been identified in pre-ERA (1988) times (e.g. Marland, 1971; Lambert, 1975) and the low priority accorded to monitoring and evaluation compared to administrative tasks is still evident in post-ERA (1988) times (e.g. Earley and Fletcher-Campbell, 1989; Glover *et al*, 1998; Glover and Miller, 1999) (see Chapter 2, pp.130-131). Similar to

the experience of Singapore cluster heads of department, another area of conflict for UK heads of department concerns whole school management versus subject responsibility. The empirical literature shows that although official policy as indicated in the TTA standards and OFSTED reports seems to straddle hierarchicalism and collegiality (Bennett, 1999), having to act simultaneously as sectional representatives and participants in collaborative decision-making can be conflicting, and there is a reluctance among heads of department to be involved in whole school issues (e.g. Brown and Rutherford 1998) preferring to be translators and mediators rather than originators of whole-school policy, vision and culture (Glover et al, 1998) (see Chapter 2, pp. 131-132). As Hannay and Ross (1999) observe there is a tension between a traditional set of responsibilities which is difficult to throw away and a new set of requirements and Glover and Miller (1999) argue that the conflict between the demands of whole-school managementt and subject leadership detract from the exercise of leadership functions even if additional time is given for whole-school functions (see Chapter 2, p. 133).

'Inter-role' conflict puts pressure on the Singapore cluster heads of department's skills in balancing between transformational leadership and transactional leadership in managing externally-imposed changes. It can be seen that the cluster heads of department's predicament is to manage successfully different functions such as bridging and brokering between different levels of authority and mediating epistemological changes to their teachers to help them adapt to changing demands particularly at cluster and whole-school levels, and also to negotiate on their departmental members' behalf to school management as well as to the cluster superintendent through the principal. Such tensions substantiate empirical findings

(e.g. Busher and Harris, 1999; Busher *et al*, 2000; Busher, 2001, 2002) that the impact of change on middle managers require them to manage different functions such as bridging and brokering between different levels of authority, mediate and interpret the changes to their staff and support and help them cope with the pressures of change, and negotiate on behalf of departmental members (see Chapter 2, pp.38-39).

'Training and professional development' has also been found to be an important factor impacting what heads of department do in their role. The cluster heads of department many of whom rose from the teaching ranks, generally lack leadership and managerial competence to meet the challenges of changing demands and expectations of the role. There is inadequate formal training for the heads of department and no formal training to prepare potential heads of department for the role.

This situation resembles the UK context before the establishment of the National College for School Leadership (NCSL) in 2000 to prepare teachers for leadership positions in schools (NCSL, 2005) as empirical evidence (e.g. Earley and Fletcher-Campbell, 1989; Glover *et al*, 1998; Adey and Jones, 1998; Adey, 2000) indicates that a large number of middle managers in education are promoted mainly from academic staff without adequate preparation or prior training for the role (see Chapter 2, p. 92); and training is still inadequate and unevenly distributed, given the large number of teachers with middle-management responsibilities to cater for, despite the ILEA's wide range of management training courses in the UK since 1980, and the TTA's (1996) identification of training priorities for middle managers (ILEA 1984; Ribbins, 1988; Adey (2000) (see Chapter 2, pp.92-93).

Similar to the study findings on Singapore heads of department, empirical studies (e.g. Harris, 1998; Adey and Jones, 1998; Adey, 2000) also show that there is a lack of management and leadership skills on the part of the subject leader in UK schools (see Chapter 2, p. 93). As Busher & Harris (1999, p. 314) conclude, levels of involvement are a function of the middle manager's confidence, expertise and skill in management (see Chapter 2, pp. 90 & 92). However, whereas cluster heads of department are found to lack competence in appraisal of staff and identification of staff with potential, empirical research in UK schools find that there are widespread concerns about the professional development needs of middle managers particularly in areas such as: whole-school finance, development policy and priorities; development of departmental policies and budgets within the whole-school framework; and monitoring, evaluation and the identification of development needs of their teachers (Adey and Jones, 1998; Adey, 2000) (see Chapter 2, pp. 93-94).

In the Singapore context, formal training for heads of department of cluster schools is conducted at the National Institute of Education (NIE) which provides a wide range of training courses for teachers and school leaders including the DDM course for incumbent heads of department which can be compared to the NCSL's Leading from the Middle programme, a 10-month professional development programme for middle managers although it does not have a course similar to the NCSL's Emergent Leadership programme for emergent leaders (NCSL, 2005) (see Chapter 2, pp. 95-96).

The study finds that a problem with the training of heads of department in Singapore schools is the issue of time (see pp. 307-308). As has been mentioned above (see p. 307) even though the full-time Diploma in Departmental Management (DDM) course

for heads of department is offered at the NIE, close to two-thirds (i.e. 63.6%) of the cluster heads of department in the study in 2000 have yet to attend the (DDM) course. This finding underscores the urgent need to accelerate the training needs of heads of department and calls into question the importance that schools attach to middle managers' training and whether staff management programmes place priority on freeing up time for middle managers to attend full-time courses. Empirical evidence in UK schools also finds that time is an issue in the training of heads of department. Although research evidence (e.g. Harris *et al*, 2001; Bolam and Turner, 2003) points to a growing trend towards school-based training courses, there are questions about headteachers' willingness to set aside time for such training, reflecting empirical evidence (e.g. Brown *et al*, 2000) that there is lack of time for professional development despite an increasing need to radically change the training and development of middle managers who as Adey and Jones, (1998) note, include both 'experienced' managers who are continually facing new challenges at departmental and whole-school level as well as teachers new to the middle manager's role (see Chapter 2, p. 95); and that externally-run management training courses do not have any real effect on the quality of leadership in school (e.g. Glover *et al*, 1998) (see Chapter 2, p. 96).

In the light of new challenges associated with the national vision of *Thinking Schools Learning Nation* (TSLN) and going forward, the development needs of heads of department in cluster schools in Singapore lie in leadership skills which can meet the competencies expected of middle managers who are on the Leadership Track of the *Enhanced Performance Management System* (EPMS). The findings have shown that to build the leadership capacity of heads of department in cluster schools would most likely require a multi-pronged strategy incorporating formal training and informal

methods such as 'collegial collaboration' and 'learning on the job'. This is because heads of department have found 'learning on the job' helpful in enhancing their competence. This is in contrast to the perception of new heads of department in UK schools that 'learning on the job' is only something to fall back on, in the absence of appropriate training as indicated in the literature (e.g. Glover *et al*, 1998; Adey, 2000) (see Chapter 2, p.93), although empirical studies on the role of heads of department in UK universities (e.g. Deem, 2000 and Smith, 2002) have found that 'on-the-job' learning' may have its usefulness in a development programme for middle managers (see Chapter 2, p. 93).

The heads of department have also found that collegial collaboration enhances their leadership and management skills. Their affirmation of the value of collegial collaboration substantiates research findings that a collegial climate in schools impacts positively departmental effectiveness and that there are significant relationships between collegiality and teacher development (e.g. Harris *et al*, 1995; Huberman, 1995; Teo, 1999; Turner, 1998, 2003) (see Chapter 2, pp. 87-90).

Thus although there is evidence of a shared culture, it seems that much more needs to be done to enhance the shared culture and reap benefits from it. A more integrative approach to school management is needed in which all the three levels of leadership and management in the school i.e. the principal at the strategic level, the heads of department at the organisational level, and the teachers at the operational level, are working in harmony as argued by Bell (2003) (see Chapter 1, p. 24). This can be done by encouraging 'parallel leaderhip' with principals and teachers engaged in collective action to build school capacity so as to align school vision and classroom practices as

advocated by Crowther *et al* (2002) (see Chapter 1, pp. 24-25). This entails a systematic

approach to align all parts of the school to the whole school effort including aligning

school programmes with cluster activities as well. Essentially what is required is that

'Enablers' as described in the SEM (see Chapter 2, Table 1, p. 44) are integrated

seamlessly and coherently to support school programmes as described by Ng (2003) (see

Chapter 2, p. 45). A shift in the way schools are managed in line with the tenets of the

SEM will enable schools to achieve excellence and enhance the shared culture.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The study has been planned to collect evidence systematically at middle management level in the Singapore *School Cluster* system with the aim of investigating the role of heads of department in secondary schools in a school cluster in Singapore. The research problem is concerned with how heads of department in Singapore cluster secondary schools interpret their role in the light of a major restructuring in the management of schools by way of the implementation of the *School Cluster* system. The study is based on 3 themes namely: i) work culture; ii) role tensions, and iii) training and professional development as spelt out in the conceptual framework (see Figure 9, p. 138; Figure 10, p. 142) and guided by 4 main research questions and 13 sub questions as follows:

1. What is the nature of the work culture in cluster secondary schools?

   a) What is the influence of the cluster/cluster superintendent on the work culture?

   b) What is the influence of the principal on the work culture?

   c) To what extent is there a collegial work environment?

   d) What are the roles that heads of department in cluster secondary schools perform?

2. What is the nature of the heads of department's roles in cluster secondary schools?

   a) What are the key factors that influence what heads of department do?

3. Are heads of department in cluster secondary schools able to cope with all their tasks?

   a) To what extent do heads of department experience role strain?

   b) To what extent do heads of department experience role ambiguity?

   c) To what extent do heads of department experience role conflict?

   d) To what extent are heads of department satisfied with their role?

   e) To what extent are heads of department commited to staying in their role?

4. Are the training and professional development needs of heads of department in cluster secondary schools met?

   a) To what extent are heads of department competent in carrying out their role?

   b) To what extent is there formal training for heads of department?

   c) What part does informal training play in the professional development of heads of department?

Of interest in this study is the impact of the *School Cluster* system on the role of heads of department in secondary schools in a school cluster in Singapore. As such the study is located in the context of the *School Cluster* system, a major educational reform introduced into the Singapore education system together with a slew of other educational initiatives under the *Thinking Schools and Learning Nation* umbrella in 1997, in response to increasing globalisation and the strive towards excellence and world class schools. In the *School Cluster* system, school clusters are led by cluster superintendents and schools in a cluster acquire a common cluster identity. They are identified based on the geographical zone their cluster is located in and the cluster number, although they

still retain their individual identities and names (see Chapter 1, pp. 16-20; 27; 33). The design of the study itself has theoretical interest taking into account, as it did the concept of cluster school relationships not researched in previous studies. This makes it the first study focusing on the 'school cluster' concept in Singapore since the *School Cluster* system started in 1997.

By means of cluster sampling, 16 secondary schools with 132 heads of department were identified for this study. Of these 99 or 75.0% of the original sample, returned completed questionnaires. Data collection was made through a) a questionnaire which was administered to the heads of department through their respective principals and/or their vice-principals; b) interviews with 8 heads of department conducted by the researcher; and c) documentary analysis of official documents and minutes of meetings (see Chapter 3, pp.181; 189; 197; 203-204).

The themes for the study are drawn from the theoretical literature on role, empirical literature on role of heads of department in schools as well as literature on whole school reform and form the basis for the conceptual framework and for operationalising the research problem. These themes or variables are: 'work culture', 'role tensions' and 'training and professional development' (see Figure 9, p.138; Figure 10, p. 142). The conceptual framework in Figure 10 (p.142) sets out the parameters for the focus of the study: a) the first variable 'work culture' is investigated in terms of: i) external influence of the cluster/cluster superintendent, ii) internal influence of principal; iii) work relationships; and iv) role functions, in order to assess whether there is a move towards a shared culture in the cluster schools; b) the second variable 'role tensions' is

focused on role tensions such as: i) role strain; ii) role ambiguity; iii) role conflict; and how the resultant pressures and stress from the elements of the role tensions impact the attitude of departmental heads towards their role in terms of iv) satisfaction with their role, and v) commitment to staying in the role; and c) the third variable 'training and professional development' is focused on i) formal training; ii) informal training and iii) heads of department's competence in carrying out their role.

As the study is conducted in an educational setting that is, a school cluster, which has not been researched before, a new questionnaire is constructed to gather data for the study. An interview schedule based on the findings of the questionnaire is also prepared. Checks on reliability and validity are made at the pilot study stage as well as at the main study stage. The study relies on both quantitative and qualitative data. Quantitative data is obtained mainly from the questionnaire survey, while qualitative data is obtained from the open response section of the questionnaire survey, the interviews as well as from the documentary analysis. The following statistics are used for data analysis: frequency, percentages, means and factor analysis (see Chapter 4).

6.2 Summary of Findings

Pulling together the results of the data analysis and interpretations made of the findings in the previous chapter, this section presents a summary of the heads of department's role in the context of a school cluster.

Although it has been argued that much of what is revealed in the literature about the role of the head of department particularly in UK schools, is relevant to the Singapore context, the findings show that it is not possible to apply all the empirical findings to the Singapore situation. This is because the research literature is highly contextual and culture specific with most of it 'anglofied', and does not necessarily apply wholesale to other contexts therefore making generalisations based on the literature difficult. What the study has substantiated is firstly, that the heads of department's role has increasingly become more challenging because of the demands of external policy changes; secondly that the training and professional development of heads of department for their changing role is inadequate; and thirdly, that heads of department experience the inevitable role tensions such as role strain, role conflict and role ambiguity - the result of time constraint, excessive workload and role overload from their multiple roles, conflicting expectations from varied role sets, and a lack of a clear role definition respectively.

The culture specificity of the context in which heads of department in Singapore secondary schools operate sets their role apart from that of their counterparts in UK schools. Using the themes of 'work culture', 'role tensions' and 'training and professional development' in the conceptual framework (see Figures 9 and 10, pp. 138 & 142) as parameters for the investigation of the role of heads of department, the study has concluded that the role of the heads of department in cluster secondary schools is shaped by how the schools are managed both internally and externally in the unique contextual setup of administrative units called school clusters, and that the culture specificity of the work environments (school as well as cluster) has a big influence on the nature of the role tensions experienced by departmental heads and the extent of their

competence to perform within the framework of the national vision of *Thinking Schools, Learning Nation* (TSLN).

For example, as has been pointed out in Chapter 1 (pp. 6-8), external policy changes in the educational scene in Singapore, in line with the national vision of *Thinking Schools and Learning Nation* (TSLN) over the last one and half decades or so, have led to educational reforms which have exacted new demands on what schools do and on the role of heads of department These educational initiatives include the contextual change in the form of the *School Cluster* system in 1997, followed by a new school appraisal system with the introduction of the *School Excellence Model* (SEM) in 2000, and close on its heels, the announcement in 2001 of a competency-based performance management system: the *Enhanced Performance Management System* (EPMS) for appraisal of officers in the education service as part of the new Edu-Pac package (see Chapter 2, pp. 42-49). Furthermore there have been pedagogical reforms such as curriculum changes with more emphasis on critical and creative skills and interdisciplinary project work (see Chapter 1, pp. 7-8). This is the unique Singapore educational setting that the study is located in.

Hence external factors which influence what heads of department do in their schools include Ministry of Education (MOE) policies and initiatives and their corresponding expectations which are 'channelled' through the cluster/cluster superintendent to the cluster schools in the form of cluster initiatives. Top among the internal factors which impact the role of heads of department is the principal whose management style dictates

the culture of the school as reflected in such factors as the organisational structure, school policies, expectations and work relationships.

The *School Cluster* system as explained above and described in detail in Chapter 1 (see pp. 16-20) differentiates the management of schools in the Singapore context from the UK context. Under the *School Cluster* system, policy changes and educational initiatives from the Ministry of Education are filtered down to the schools through the superintendents in charge of the individual school clusters. This approach as explained by the Minister for Education, is to enable schools to be more innovative and creative in providing education to their students through 'local initiative with collaborative local decision making' (Teo, 1997) among the schools in the clusters. The *School Cluster* system exerts a powerful influence on the way schools are managed. For instance, as a result of their schools becoming part of a school cluster, heads of department have found themselves saddled with an additional role - a cluster role - and a larger role set which includes for example, the cluster superintendent as well as principals, vice-principals and heads of department of the other cluster schools and attendant expectations which have been found to be a major source of stress for the heads of department. As the findings show, the culture of collaboration is a significant feature of the *School Cluster* system. However although the notion of collegial collaboration with cluster heads of department meeting regularly in subject support groups to share ideas and dialogue for school and departmental improvement is initiated with good intentions and does have its merits, without additional time allocated for this role function, the cluster role has resulted in role ambiguity, role conflict and increased role strain as evidenced by the pressure and stress experienced by the heads of department (see Chapter 4, pp. 269-272).

In line with the national vision of *Thinking Schools, Learning Nation* (TSLN), another policy change impacting the management of schools is the introduction of a new school self-appraisal tool to help schools aim for organisational excellence. As explained in Chapter 1 and Chapter 2 (see pp.8 & 43-46) this is the *School Excellence Model* (SEM) (Ministry of Education, 2000), a self-assessment or appraisal model for Singapore schools implemented in 2000   The SEM is an adaptation from a number of quality models of business organisations such as the European Foundation of Quality Management (EFQM), the Singapore Quality Award (SQA) model and the American Malcolm Baldrige National Quality Award model (MBNQA) (Ng, 2003).   With the SEM, schools are provided with:

'a more systematic framework and holistic approach to self-assessment.   By measuring both outcomes and processes, and requiring schools to examine their practices not independently, but as parts contributing to a whole, SEM is structured to emphasise holistic education.   The SEM requires every school to continuously question its current practices and establish norms, and think of more creative and effective ways of delivering the desired outcomes of education'.

(Teo, 2002, p.1)

Schools are now required to use the SEM to objectively identify and measure their strengths and areas of improvement in their journey towards being excellent schools, in their annual self-appraisal exercise. Based on the SEM tenets, an excellent school is

construed as one in which the way ahead is shown by the leaders who lead staff, devise strategies and deploy resources, through student-focused processes to achieve excellent results. In such a context, leadership then becomes '...critical to steer the entire school forward to a new state' (Ng, 2003, p. 35) which means the principal, vice-principal and heads of department working together as a team in the quest for excellence. This has implications for heads of department as they have a key role to play as part of the leadership team in influencing the school's culture, processes and resources so that all in the school are in sync and are moving in the same direction towards school excellence (see Chapter 2, p. 45).

Another external change concerns performance management. As has been explained in Chapter 1 and Chapter 2 (see pp. 8 & 46-49), the *Enhanced Performance Management System* (EPMS) announced in 2001 by the Minister for Education is part of a new teaching career package introduced by the Ministry of Education (MOE) in 2001. As has been explained in Chapter 2, this new teaching career package called the *Education Service Professional Development and Career Plan or* Edu-Pac has three components: a new career structure, a new recognition structure and an enhanced performance management system. The new career structure comprises three career tracks or three fields of excellence namely: a Teaching Track, a Leadership Track and a Senior Specialist Track with which the MOE hopes 'to build a top-notch team of good teachers, capable leaders and dedicated specialists' (Teo, 2001, p. 2) (see Chapter 2, p. 46). Just as the Teaching Track caters for those who aspire to a career in the classroom and the Senior Specialist Track for those who aspire for a specialist career in the MOE headquarters, the Leadership Track leads to leadership positions in the schools and the

MOE headquarters. Middle managers such as heads of department together with their principals and vice-principals are those in the The Leadership Track. The essence of the second component of *Edu-Pac*, the new recognition structure is the adoption of a total rewards or recognition plan which recognises and rewards good performance as well as provides opportunities for learning and development.

However it is the third component of *Edu-Pac* that is, the Enhanced Performance Management System (EPMS) which will impact the role of heads of department, and other school leaders such as vice-principals and principals most, as they form the leadership team with supervisory powers in their schools. As the Minister for Education has stated (see Chapter 2, p. 47), the EPMS is

> 'the glue that binds the other two components of Edu-Pac. It will provide greater clarity in terms of the link between pay and performance as well as career progression along the different career tracks'.

> (Teo, 2001, p. 7)

EPMS is designed to provide officers with greater clarity in the competencies and behaviours expected of them so that they can actively reflect on their capabilities and achievements, and chart their own professional development while supervisors, using EPMS can help teachers develop into better teachers through regular coaching and feedback. It defines the competencies (i.e. knowledge, skills and traits) essential for

success in each track or field of excellence, each described according to major role functions in the Role Profile and Key Result Areas (KRAs) for each level in the teaching service that is, from teachers to middle managers (e.g. subject heads, heads of department) and school leaders (e.g. vice-principals, principals). This, according to the Minister for Education, is to enable the appraisal of officers to be more customised to the role that they play. For example, in the case of school leaders greater emphasis is given to their ability to provide visionary leadership (see Chapter 2, p. 47).

The Edu-Pac underscores the important task of heads of department, vice-principals and principals as the senior education officers in the education service to create an environment which is nurturing and supportive and which provides satisfaction for all teachers (see Chapter 2, p. 49). The goal of the Ministry of Education (MOE) is for all schools and officers to look long-term and develop pupils holistically. To this end, the SEM and EPMS are assessment tools designed:

'...to encourage and reinforce behaviours and outcomes that we value.

SEM and EPMS are two important instruments for aligning practices

and behaviours with our ability-driven paradigm'.

(Teo, 2002, p.2) (see Chapter 2, p. 48)

Based on the findings, which underscores the culture specificity of the Singapore context and its impact on the heads of department's role in secondary schools, the study is in a good position to justifiably propose an alternative model of the role of heads of

department in secondary schools (see Figure 15: *Model of Role of Heads of Department in Cluster Secondary Schools,* p. 337).

6.3 Towards a Model of the Role of Heads of Department in Singapore Cluster Secondary Schools

The conceptualisation of the model takes into consideration the main themes of the study: 'work culture', 'role tensions' and 'training and professional development' as depicted in the conceptual framework (see Figure 9, p. 138; Figure 10, p. 142) and incorporates them in the unique culture setting of the Singapore context. As such the model is shaped by the *Thinking Schools, Thinking Nation* (TSLN) initiatives such as, the management of schools as administrative cluster units under the *School Cluster* system, and the SEM and the EPMS, the two assessment instruments employed by the MOE and schools for aligning practices and behaviours with the MOE's ability-driven paradigm (see Chapter 2, p. 48).

The impact of the management of schools as administrative units in the *School Cluster* system on the role of heads of department is depicted in the model under 'External Context' (box ii) in terms of cluster initiatives and collaboration imposed on the schools by the cluster/cluster superintendent in response to the MOE's educational policies/initiatives (see Figure 15, box ii, p. 337).

Figure 15: Model of Role of Heads of Department in Cluster Secondary Schools

EDUCATIONAL OUTCOMES

ix) Results e.g.
- **Key performance results (students)**
- **Staff results**
- **Administrative & Operational results**
- **Partnership & Society results**

EXTERNAL CONTEXT

COMPETENCIES

i) Ministry of Education: National Policies & Initiatives e.g.
- **school cluster system**
- **school excellence model (SEM)**
- **enhanced performance management system (EPMS)**

vii) Knowledge & Skills e.g.
- **national education policies**
- **development in field of education**
- **leadership & school management**
- **People management**

viii) Head of Department Roles
- **cluster role**
- **whole-school role**
- **department role**
- **teaching role**

vi) Leadership Characteristics e.g.
- **charting organisational directions through**
  - * **leadership/vision**
  - * **strategic planning & administration**
- **development & management of staff**
- **management of pupil-focused processes**
- **management of resources**
- **professional development**

ii) Cluster/Cluster Superintendent: Cluster Initiatives & Collaboration e.g.
- **subject support group**
- **professional sharing**
- **training workshops, seminars etc.**
- **cluster committees**

iii) Culture e.g.
- **leadership**
- **strategic planning**
- **staff management**

iv) Processes e.g.
- **student well-being**
- **teaching and learning**
- **assessment of students**
- **leadership development**
- **co-curricular development**

v) Resources e.g.
- **physical Facilities**
- **teaching-learning**
- **finance**
- **information & analysis**
- **suppliers**
- **partnerships**
- **administration**

INTERNAL/SCHOOL CONTEXT

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Figure 16: Model of Part Played by Heads of Department in Leading & Managing

Their Departments
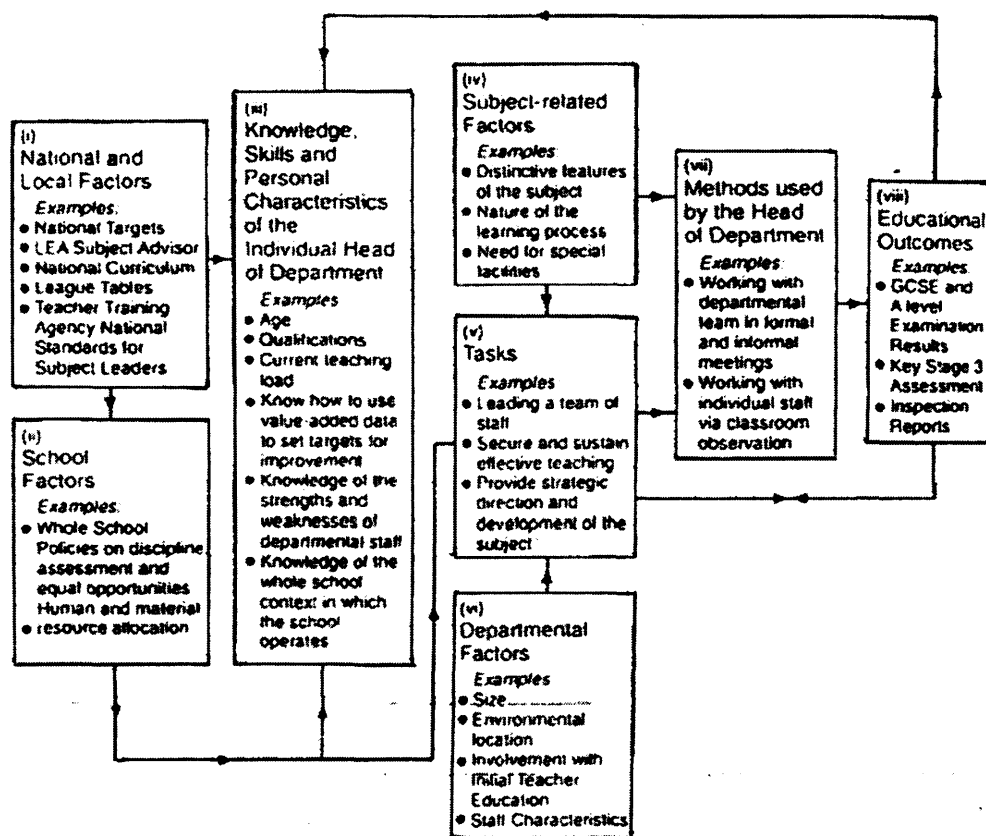
Source: Turner & Bolam (1998)

The SEM and the EPMS have wide implications on how work culture, role tensions and training and professional development are to be managed in the 'Internal Context' of the schools. The SEM's influence on the model is depicted in terms of how school leaders manage the 'enablers' (see Chapter 2, p. 44) in the 'Internal Context' to meet the standards of an excellent school. As explained in Chapter 2, the SEM has important implications on the role of heads of department as members of their schools' leadership team in influencing the culture, processes and resources of their schools (see p. 45). As the SEM implies, managing school 'culture', involves the development of a shared vision and culture through committed leadership and strategic planning as well as development and utilization of the full potential of school staff through effective staff management such as training and development and involvement of staff in school improvement; managing 'processes' involve the design, implementation, management and improvement of key processes to provide a holistic education; and management of 'resources' involve the management of internal resources and external partnerships to support the school's strategic planning and the operation of processes (Ministry of Education, 2000).

The EPMS' influence on the model is depicted in terms of the leadership characteristics required of heads of department if they are to fulfil their role as 'visionary' leaders (see Chapter 4: Table 26, p. 248). As has been explained, the EPMS has been entrenched as the performance appraisal instrument of school leaders including middle managers since 2003 (and for teachers since 2005), and therefore its impact on the role of heads of department cannot be ignored. It places heads of department on the Leadership Track and defines their leadership role according to major role functions in the Role Profile

and Key Result Areas (KRAs) at the head of department level. These KRAs or competencies represent the leadership skills expected of heads of department and against which they are appraised. As such, the EPMS together with the job description for heads of department serve to make the role of heads of department more clearly defined. Whereas the job description fell short of defining the cluster responsibilities of heads of department (see Chapter 4, pp. 245-246), the EPMS has defined the cluster role in two of the KRAs: 'Charting Organisational Directions' and 'Developing People'. Under the former KRA the cluster role is defined as: 'work with cluster and co-ordinate at cluster level to ensure consistency in the delivery and assessment of subject' and under the latter KRA it is defined as 'facilitate the professional development of teachers by doing professional sharing at school/cluster level' (Ministry of Education, 2002, p.2) (see Chapter 4, Table 31, p. 254). Hence the EPMS' contribution to the model lies in delineating the 'training and professional development' needs of heads of department as depicted under 'Competencies' in the proposed model's framework (see Figure 15, p. 337).

The structure of the proposed model is adapted from Turner and Bolam's (1998) model of the part played by subject leaders in leading and managing their departments (see Figure 16, p. 338). In Turner and Bolam's model, emphasis is placed on the subject leader's core task of leading and managing their departments to raise standards in teaching and learning. Turner and Bolam's (1998) model employs contingency theory (Fiedler, 1967) to the context in which subject leaders operate and is built on the 'input-process-output' model of Bolam et al (1993) incorporating 'input' factors, 'process' factors, and 'departmental' factors in a simplified model representing a complex set of

processes and interactions 'which all overlap with each other' (p. 379). In the model

(Figure 16), 'input' factors such as government policy on the professional development

of teachers, inspection and target setting are highlighted, while 'process' factors focus

on personal characteristics of the HOD, tasks, and the methods used by the HOD. The

'departmental' factors come under two headings namely, subject-related factors and

department factors. Incorporated in the model are whole-school and external factors

which also determine teaching and learning outcomes (Turner and Bolam, 1998).

The proposed model of the role of the head of department in cluster secondary schools

(Figure 15, p. 337) is similar to the Turner and Bolam's (1998) model (Figure 16, p.

338) in that it applies contingency theory to the contexts in which heads of department

perform their role. Essentially, contingency theory (e.g. Fiedler, 1967), suggests that the

work of school leaders is contingent on a set of factors prevailing in the school

environment at a particular time. As has been discussed in Chapter 2 (pp.110-114) the

contingency theory postulates that there is no one best way of organising/leading in

other words, the optimal organisation/leadership style is contingent upon various internal

and external constraints which may include: the size of the organisation; the way it

adapts to its environment; differences among resources and operations activities,

managerial assumptions about employees, and strategies, and technologies used

(12manage, 2006). Important aspects of contingency theory are that: an organisation's

design and its subsystems must 'fit' with the environment; effective organisations not

only have a proper 'fit' with the environment but also between its subsystems; and the

needs of an organisation are better satisfied when it is properly designed and the

management style is appropriate to the tasks undertaken as well as the nature of the work

group (Fiedler, 1967; Wikipedia, 2006; 12manage, 2006). Fiedler's (1967) contingency model, postulates that the leader's effectiveness is based on situational contingency or a match between the leader's style and situation favourableness or situational control; leadership effectiveness is the result of interaction between the style of the leader and the characteristics of the environment in which the leader works (Fiedler, 1967; Value Based Management.net, 2006).

In the light of the numerous policy changes in the education system since 1997 under the umbrella of TSLN, the model incorporates the idea in contingency theory (Fiedler, 1967) that the internal functioning of an organisation should co-relate to the demands of the external environment, and postulates that the role of heads of department is contingent upon internal and external 'constraints' that is, the situations prevailing in the internal school context and in the larger external cluster context respectively.

External environmental factors or 'constraints' that are incorporated as examples in the model under 'External Context' include the cluster/cluster superintendent's influence (i.e. culture of collaboration and cluster initiatives), and the Ministry of Education: National Policies and Initiatives such as the *School Excellence Model* SEM and the *Enhanced Performance Model System* EPMS (see Figure 15, p. 337). Although both the SEM and EPMS are important assessment tools, the former for appraisal of schools and the latter for appraisal of staff, the SEM also implicitly provides the 'ingredients' for an excellent school, or in other words sets out the parameters within which school leaders (including heads of department) need to focus to achieve excellence and achieve the desired outcomes of education, while the EPMS on the other hand, sets out firstly, the

important milestones or 'benchmarks'(using. Key Result Areas (KRAs)) which delineate levels of quality or effective leadership for school leaders as well as teachers, and secondly, the leadership skills (i.e. Competencies) that will enable achievement of the desired educational outcomes.

Internal environmental factors or 'constraints' are incorporated in the proposed model, in the section 'Internal School Context' (subdivided into 'Culture', 'Processes' and 'Resources') as exemplified by the principal's management style, the organisational culture, systems, structures, frameworks, resources (i.e. finance, facilities, personnel) and the state of staff development etc. 'Internal School Context' also represent the processes that the school leaders (including heads of department) input to meet expectations of the external environment as well as the internal environment (e.g. student-focused processes, staff development programmes, teamwork and shared decision-making) to achieve the goals of excellence and desired educational outcomes

Hence the 'External Context' and 'Internal/School Context' in the model (Figure 15) represent the environmental factors within which the heads of department operate. Applying contingency theory (e.g. Fiedler, 1967) to the proposed model, how heads of department lead their teachers to achieve the desired educational outcomes depends on the situation and the best approach they take to accomplish it. As contingency theory postulates, the leader's effectiveness is based on situational contingency or a match between the leader's style and situation favourableness or situational control. In Fiedler's model, leadership effectiveness is the result of interaction between the style of the leader and the characteristics of the environment in which the leader works (Fiedler,

1967; Value Based Management.net, 2006). In the proposed model, 'Competencies' (as outlined in the EPMS) delineate the capacity of heads of department to lead and determine their ability to respond effectively to the environmental situations and changes to achieve the desired educational outcomes within the constraints of the environments that they operate. The effects of each of the factors in the model (Figure 15) on the heads of department role are explained in Section 6.4 below.

As has been concluded from the results of the study, what heads of department do in their schools is determined by factors prevailing in their work environments, such as the culture of the organisation, the tensions surrounding the role as well as their own capacity to lead and manage as part of the leadership team in their schools. These internal factors are in turn contingent on the external impact of Ministry of Education policies such as the SEM framework for school excellence, and on the EPMS Competencies for heads of department, as well as cluster initiatives. In this sense the model of the role of the head of department in cluster secondary schools utilises the 'input-process-output' concept of Turner and Bolam's (1998) model (Figure 16). The Singapore model (Figure 15) is a simplified diagram which encapsulates the complex set of processes and interactions in the head of department's role. Essentially, the conceptual framework of the Singapore model is built upon the findings of the study, the SEM framework for school excellence, and the EPMS Competencies for heads of department.

However there are distinct differences in emphasis and structure separating the Singapore model (Figure 15) from the Turner and Bolam (1998) model (Figure 16).

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Firstly in terms of emphasis, while the Turner and Bolam's (1998) model is concerned with the subject leader's core task of leading and managing their department to raise teaching and learning standards, the Singapore model is focused on the heads of department's strategic leadership role incorporating a departmental management role, a whole-school strategic role as well as a cluster role to bring about the desired educational outcomes. As the results have shown, the role of the heads of department in the Singapore context is a leadership role that extends beyond the role of subject leader. The whole-school role of heads of department as part of the school leadership team is implied in the *School Excellence Model* (SEM) in which heads of department, together with their principal and vice-principal working as a committed school leadership team are expected to shape the culture of their schools and ensure that the necessary platform is in place to sustain change (Ng, 2003) (see Chapter 2, p. 45).

Structure-wise, instead of the 8 separate components found in the Turner and Bolam's (1998) model (Figure 16), the Singapore model (Figure 15) comprises 9 components with 7 subsumed under the following headings: 'External Context'(2); 'Internal/School Context'(3); and 'Competencies'(2). 'Educational Outcomes' and 'Head of Department Roles' are the other 2 components. 'External Context' includes the 'input' factors which determine what goes on in the schools. It subsumes two external 'input' factors: the Ministry of Education (box i) and the Cluster/Cluster Superintendent (box ii), which exert considerable influence on what heads of department do in Singapore schools by way of i) 'national policies and initiatives' and ii) 'cluster initiatives and collaboration' respectively. The 'External Context' of the model underscores the importance of the school cluster and/or the cluster superintendent's influence on what goes on in the

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'Internal/School Context' as national policies and initiatives are 'channelled' through the school cluster and/or the cluster superintendent to the schools for implementation. The 'Internal/School Context' has three components namely, 'Culture' (box iii), 'Processes' (box iv), and 'Resources' (box v) (Figure 15). The 'Competencies' component subsumes the 'Leadership Characteristics' (box vi) and 'Knowledge and Skills' (box vii) expected of heads of department as spelt out in the EPMS (see Figure 15 p. 337).

6.4 Applying the Model

The nature and potential utility of the model is explained in this section according to the following headings: External Context, Internal/School Context, Competencies, Role of Heads of Department, and Educational Outcomes as shown in Figure 15.

6.4.1 External Context

Box i) Ministry of Education: National Policies & Initiatives

External policy changes in Singapore under the *Thinking Schools Learning Nation* (TSLN) umbrella in the late 1990s and the start of the new millennium have impacted the management of Singapore schools. These policy initiatives which provide new directions and guidelines for leadership in schools including the role of heads of department are filtered down by to the schools in the school clusters by the cluster superintendents. This has been the practice since 1997, when the *School Cluster* system which was implemented, decentralised authority and accountability from the Ministry of

Education to the various school clusters led by their respective superintendents (see Chapter 1, pp. 16-20). With the devolvement of autonomy to the school clusters, the response to changes is managed locally and decision making becomes more collaborative in nature thus enabling schools to be more flexible and responsive to their pupils' needs in order to achieve school results and excellence. As such, schools do not have to refer back to the Ministry of Education but to their respective cluster superintendents for decision-making.

The grouping of a number of schools under the leadership of cluster superintendents each introduced a totally new way of managing schools. In a sense the *School Cluster* concept extended the hierarchical structure beyond the school by adding another layer in the line management above the principal and that is, the cluster superintendent. The implication of this is that heads of department now answer not only to their vice-principal and principal but also to the cluster superintendent through their principal. The *School Cluster* system also introduced a culture of collaboration in the school cluster. From a positive standpoint this has resulted in collegiality and networking among the heads of department. However it also added a cluster role which has caused heads of department much role strain as the findings showed. The *School Cluster* system also facilitates benchmarking allowing heads of department to strive towards higher standards of performance by making comparisons with better schools and target setting. However, this also implies that benchmarking is extended to performance of school leaders including heads of department as annual cluster performance appraisal and ranking of heads of department, vice-principals and principals indicate.

Another major educational initiative in the Singapore context which has changed the way schools are managed and impacted the role of heads of department concerns the internal appraisal of schools. Since 2000, a new self-appraisal system with a more systematic framework and holistic approach to self-assessment of schools has been implemented. It is spelt out in the *School Excellence Model* (SEM), a tool for schools to self-assess and aim for excellence (see Chapter 2, pp. 43-46). As a result of this policy change, and in line with the national vision of *Thinking Schools, Learning Nation* (TSLN), schools in Singapore are tasked with developing themselves into excellent schools led by principals who now function as CEO of their organisations using the SEM as a tool to conduct self-appraisal for school improvement (Ng, 2003). As shown in the SEM chart (see Chapter 2, Table 1, p. 44; Appendix 3), schools are required to conduct self-assessment against nine quality criteria, which are divided into two categories: i) 'Enablers' which show how results are achieved; and ii) 'Results' which show what have been achieved. There are five 'Enablers' namely: Leadership, Strategic Planning, Staff development, Resources, and Student Focused Processes and four 'Results' criteria namely: Staff Results, Administrative & Operational Results, Partnership & Society Results, and Key Performance Results (see Chapter 2, Table 1, p. 44). In essence, the new self-appraisal system is a move away from the traditional management of a school by departments to ensuring that departments fit into the bigger picture and for problems to be approached in a systemic or integrative manner. This requires that school leaders including heads of department have a deep understanding of the interdependency of school programmes and that there is alignment of all segments of the school with the effort towards school excellence. This underscores the importance of the whole-school role of heads of department in managing the culture, processes and

resources in the school to produce the desired educational outcomes and excellence using the holistic approach of the SEM (see Chapter 2, p. 45).

Another nationally imposed policy change initiated by the Ministry of Education which impacted the role of heads of department and other school leaders in schools is the new package called the Edu-Pac or *Education Service Professional Development and Career Plan* which incorporates three main components, that is, a new career structure, a new recognition structure, and an enhanced performance management system as summarised in section 6.2 (see pp. 333-335). The new career structure comprises three career tracks or fields of excellence namely, a Teaching Track, a Leadership Track, and a Senior Specialist Track and heads of department and other school leaders are on the Leadership Track, a 'track that leads to leadership positions in the schools and HQ' (Teo, 2001, p. 3). The second component is the new recognition structure which establishes a strong link between pay and performance. However it is the third component of Edu-Pac, that is, the *Enhanced Performance Management System* (EPMS), which is a significant departure from the 'one-size fits all approach that emphasises the capability for management' (Teo, 2001, p.7) of the past. Although the EPMS for schools to appraise performance was announced in 2001, a year after the study was carried out, it is another major educational initiative coming on the heels of the SEM which has impacted the way schools are managed. In the EPMS, performance appraisal in the Education Service is based on clearly defined competencies and behaviours for each level of role in schools and at Ministry of Education headquarters (see pp. 47-48; 334-335). Thus the EPMS defines the competencies and behaviours expected of teachers as well as school leaders for success in each of the three fields of excellence or tracks: i) Teaching Track, ii)

Leadership Track and iii) Senior Specialist Track. As defined in the EPMS, the role of heads of department is clearly a leadership role as the competencies and behaviours expected of heads of department are described in the Leadership Track.

These new educational initiatives under the umbrella of TSLN has resulted in a major restructuring of the education system, greatly impacting the management of schools and also placing a heavy responsibility on school leaders who, as the Minister for Education has emphasised,

> 'prioritise and operationalise MOE policies...give life and meaning to
> them and shape the school environment'.

> (Teo (2001, p. 8)

These new educational initiatives, and the corresponding responsibilities for heads of department as part of the school leadership are reflected in the model under 'Internal/School Context' and 'Competencies' (see Figure 15).

Box ii) Cluster/Cluster Superintendent: Cluster Initiatives and Collaboration

As explained above, national policies and initiatives are cascaded down to schools through the school cluster. How this is done depends much on the management style of the cluster superintendent. As the findings show, the Ministry of Education's expectations that a culture of collaboration would result from the formation of clusters is facilitated by the cluster superintendent through collaborative activities such as subject

support groups and professional sharing. To ensure that schools are prepared for policy changes and initiatives from the Ministry of Education, specially tailored training sessions for school leaders and middle managers are initiated by the cluster superintendent. For example, to ensure that key personnel in schools are able to effectively use the SEM as a tool for self assessment, numerous SEM training sessions were organised on a cluster basis to familiarise school leaders including heads of department with the use. Similarly when the EPMS was announced in 2001, cluster superintendents also took over the preparation of the schools' key personnel for the implementation of the EPMS by conducting intensive training of school leaders including heads of department at cluster level before it was rolled out to schools in 2003 for performance appraisal of school leaders and middle managers, and for teachers in 2005. Thus the cluster initiatives which are introduced by the cluster superintendents are in response to Ministry of Education policies and initiatives and impact greatly what school leaders including heads of department do in their role.

6.4.2 Internal/School Context

Internal contextual factors reflect how the school is managed internally by the principal/school management. These factors which impact the role of heads of department work are grouped under three headings: culture, processes and resources. These three factors are derived from the quality criteria or 'Enablers' of the *School Excellence Model* (SEM) namely: Leadership, Strategic Planning, Staff development, Resources, and Student Focused Processes (see Table 1, p. 44; Appendix 3) and they reflect the whole-school role of the heads of department in managing the culture,

processes and resources in the school to produce the desired educational outcomes (see pp. 348-349). The reason for basing the headings on the SEM assessment criteria is to align the way the schools are managed to the framework of the SEM which has guided the work done in schools since 2000, when it was introduced. Since then school leaders including heads of department have focused their attention on strengthening the 'Enablers' to produce excellent 'Results'.

The impact of the SEM on the leadership role of school leaders and in particular on middle managers can be explained with reference to the framework of the SEM and its implications. As Ng (2003) explains, the SEM is 'driven by a set of core values, which defines the purpose and form of the SEM' (p. 31). Underpinning the SEM framework are seven fundamental values and principles:

- students first,
- teachers - the key,
- leading with purpose,
- systems support,
- working with partners,
- management by knowledge and
- continuous improvement and innovation.

These values and principles take into consideration the attributes that make a school successful and together they define the purpose of SEM which is to enable schools to seek continuous improvement and innovation. The core values emphasise the

importance of having a purposeful school leadership, putting students first and seeing teachers as the key to making quality education happen. Primarily, the seven core values underscore the tenet that above all else, the development of students is at the heart of all education processes. The achievement of school excellence requires school leaders' commitment and acceptance of these values and principles. People are the source of new ideas, improvements and innovations that sustained achievement is built upon. Resources and support systems facilitate education delivery. How school leaders lead people and manage the resources in the school will determine the extent of organisational excellence in our schools (Ministry of Education, 2000). Hence the role of heads of department and their principal and vice-principal as implied in the SEM is to ensure that the culture, processes and resources of their schools are linked together with programmes towards school goals. In other words, their responsibility is to see that the school's culture, processes, resources, programmes and school goals are as Ng (2003) puts it 'coherently and seamlessly integrated' (p. 33) and 'aligned with the effort for school excellence' (p. 33). In this respect school leaders now have a new perspective of managing their schools in the SEM which

> 'represents a fundamental change in the way schools in Singapore relate to the Ministry of Education. It represents a breakaway from the old model where schools merely receive and execute edicts from headquarters. The SEM forms part of the platform on which schools can spearhead their own education or reform initiatives within the broad policy parameters defined by the MOE'.
>
> (Ng, 2003, p. 31)

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Box iii) Culture

The first internal factor 'Culture' (box iii) (see Figure 15, p. 337) broadly covers the first

three quality criteria or 'Enablers' in the SEM: Leadership, Strategic planning and Staff

development. As the findings show, the way the schools are managed plays a big part in

determining what the people in them do. In the SEM, 'leadership' is all about how

school leaders including heads of department and the school's leadership system,

address values and focus on student learning and performance excellence; and how the

school addresses its responsibilities towards society. 'Strategic planning' is concerned

with how the school sets clear stakeholder-focused strategic directions, develops action

plans to support its directions, deploys the plans and tracks performance while 'staff

development' is focused on how the school develops and utilises the full potential of its

staff to create an excellent school (Ministry of Education, 2000). The results of the

study have shown that developing school culture is an important factor in overall school

performance as it impacts how departmental heads in the schools carry out their role as

reflected in the extent of role tensions surrounding their role and the training and

professional development that they receive in their role. As the Minister for Education

(Teo, 2002, p. 3) states:

> 'Whether we can effectively influence the culture and focus in our
>
> schools to provide a more holistic education, and thereby achieve the
>
> desired outcomes of education, will depend on ...leadership'.

Box iv) Processes

The second internal/school factor 'Processes' (box iv) (see Figure 15, p. 337) reflects 'student-focused processes', another of the 'Enablers' described in the SEM (see Table 1, p. 44). 'Processes' reflects the important management role of the heads of department in designing, implementing, managing and improving key processes to provide a holistic education and work towards enhancing student well-being (Ministry of Education, 2000). 'Processes' are important as educational processes which are streamlined help to bring about learning in the most direct way (Ng, 2003). Examples include student well-being, teaching and learning, assessment of students, and co-curricular development. For the key processes to be managed well by heads of department will depend on their management and leadership skills which are reflected in the quality and extent of staff development provided for them.

Box v) Resources

The third internal/school factor is 'Resources' (box v) (see Figure 15, p. 337) which reflects the management of schools' internal resources and its external partnerships so as to support its strategic planning and the operation of its processes. It is part of the heads of department's role to manage resources effectively and efficiently to support school programmes in order to bring about successful educational outcomes (Ministry of Education, 2000). 'Resources' include physical facilities, teaching-learning resources, finance, information & analysis, suppliers, partnerships and administrative support (Ministry of Education, 2000). The provision of adequate resources such as physical facilities, teaching-learning resources and budget as well as staff has been found in the study to be important in determining how heads of department perform their role.

6.4.3 Competencies

As revealed in the findings, there is a need for more training and professional development of heads of department in leadership and management skills. A headstart has been made with the cluster/cluster superintendent mounting specially tailored training sessions in the wake of major educational policy changes in areas such as internal self appraisal of schools and performance appraisal, to equip departmental heads with the necessary knowledge and skills to use the assessment tools and to help their teachers cope with the ever-changing educational landscape. The role of heads of department has been more comprehensively defined in the EPMS document with a significant departure from the one-size fits all approach which emphasised capability for management of the past, to leadership capability (see pp. 349-350). In customising the appraisal of officers to the role they play, the EPMS has provided greater clarity in the competencies and behaviours expected of different levels of officers in the education service and helped them to 'actively reflect on their capabilities and achievements, and chart their own professional development' (Teo, 2002, p. 2). Those on the Leadership Track such as school leaders including heads of department can now expect greater emphasis to be placed on their ability to provide visionary leadership,. The 'Competencies' section of the model reflects the competencies and behaviors for heads of department under two categories namely: Leadership Characteristics and Knowledge and Skills (see Figure 15: box vi & box vii, p.337).

Box vi)   Leadership Characteristics

'Leadership Characteristics' (box vi) (see Figure 15, p. 337) based on the Role Profile

of Leadership Field of Excellence in the EPMS (Ministry of Education, 2002) reflect the competencies that are essential for effective performance of school leaders and middle managers in carrying out their role as spelt out in the form of key result areas (KRAs), and emphasise the professional characteristics which are appropriate for effective performance in the leadership field (see pp. 47-49; Table 26, p 248). The KRAs are:

- Charting Organisational Directions through: Leadership/Vision, and Strategic Planning and Administration

- Developing People through: Development & Management of Staff, and Professional Development

- Management of Processes

- Management of Resources

Under KRA: 'Leadership/Vision', the heads of department are accountable for setting vision/direction for the department in line with school goals; provide professional leadership for the subject to ensure quality teaching and student achievement; spearhead implementation of MOE's initiatives; effectively communicate rationale to the department and lead school in initiatives for school effectiveness.

Under KRA: 'Strategic Planning & Administration', heads of department are expected to contribute to the short term and long-term goal-setting, strategic planning and review process of their schools; set well-defined goals, objectives and performance targets for their departments; oversee setting of examination as well as test papers; conceptualise programmes which are in line with school goals; and work with cluster colleagues and co-ordinate at cluster level for consistent delivery and assessment of subject.

Under KRA: 'Development & Management of Staff', heads of department are accountable for the supervision and monitoring of teachers; reviewing and evaluating their performance. Furthermore they have to provide feedback and coaching to help their teachers improve their performance as well as identify training and developmental needs and plan for relevant training activities for the department.

Under KRA: 'Professional Development', heads of department are accountable for continual self development in professional expertise, managerial and leadership skills, and act as mentor to teachers and subject heads/ level heads (SH/LH) in pedagogical and managerial aspects of their roles. Furthermore they have to facilitate the professional development of teachers by carrying out professional sharing at school/cluster level.

Under KRA: 'Management of Processes', heads of department's accountabilities are to monitor and assess performance and development of pupils; carry out data analysis of results and evaluate learning outcomes; structure new programmes/workshops or introduce new strategies for improved learning outcomes; and explore assessment modes and use of information to improve students' performance.

In the 'Management of Resources' heads of department are expected to plan, manage and monitor their departmental budgets; oversee the allocation, management and usage of physical and teaching-learning resources; and forge partnerships with parents and community to improve pupil learning.

Box vii) Knowledge and Skills

The 'Knowledge and Skills' category (see box vii in Figure 15, p. 337) comprises another set of KRAs representing essential competencies in the Role Profile of school

leaders and middle managers in the EPMS. Under 'Knowledge and Skills' heads of department are expected to demonstrate strong understanding/knowledge in:

- National Education Policies

- Development in Field of Education

- Leadership & School Management

- People Management.

For 'National Education Policies', there is a need to know 'the rationale and the philosophy that set the direction and focus for school-based leaders to carry out their tasks and lead the school' (Ministry of Education, 2002: Role Profile of Leadership Field of Excellence p. 4). Heads of department are expected to demonstrate clearly an understanding of the link between the different national education policies and incorporate them in their instructional programmes and guide their departmental teachers to incorporate the policies in their teaching.

For 'Development in Field of Education', there is a need for 'the knowledge in the field of education that mould a complete educator' (Ministry of Education, 2002: Role Profile of Leadership Field of Excellence, p. 4). Here heads of department are expected to demonstrate strong knowledge of content and curriculum as well as relevant pedagogic techniques and approaches of subject area(s). They are also expected to demonstrate knowledge in current research in the field of education and integrate such knowledge to their teaching and the instructional programmes of their department.

'Leadership & school management', is about 'the managerial and leadership knowledge and skills that school leaders must understand and harness to achieve the objectives of the school' (Ministry of Education, 2002: Role Profile of Leadership Field of

Excellence, p. 4). For this, heads of department are expected to demonstrate knowledge of leadership/managerial styles and practices and their impact on the climate of the departments, and an understanding of organisational learning, total organisational excellence and innovation and share their knowledge with teachers and peers.

'People management' is about 'the knowledge of human relations and people management so as to develop and maximise staff's and pupils' human potential to achieve the goals of the school' (Ministry of Education, 2002: Role Profile of Leadership Field of Excellence, p. 4). Heads of department are expected to demonstrate: knowledge of people motivation and harness it to coach for optimal performance; different learning styles and incorporate them to identify areas of staff development and relevant training activities; and existing people management systems and policies and utilise them to develop and motivate their staff (Ministry of Education, 2002).

6.4.4 Role of Heads of Department (Box viii)

The model of the Role of Heads of Department in Cluster Secondary Schools in Singapore has shown how factors in the external context and the internal/school context as well as the competencies of heads of department impact the role of heads of department in cluster secondary schools. Box viii) 'Head of Department Roles' (see Figure 15, p. 337), shows that heads of department in cluster secondary schools perform a multi-tiered role which includes a teaching role, a departmental role in leading and managing their departments, a whole-school role as part of the school management team and a cluster role which evolved from collegial collaboration at cluster level (see Chapter Four, pp.242-254). As evidenced from the results of the study, the heads of

department's role is a challenging one. Firstly, it is surrounded by 'tensions' which create pressure and stress. These role tensions are namely, role strain arising from excessive workload, role overload and consequently inadequate time to complete all their tasks; role ambiguity arising from a lack of a clear definition of the role; and role conflict a result of conflicting expectations from numerous role sets. Secondly, the expectations of the role far exceed the training and professional development given to heads of department. Here is where the SEM's systemic framework for management of internal contextual factors such as the culture, processes and resources of the school is relevant as it enables schools to work towards ensuring for their staff, a conducive work environment which as implied in the conceptual framework of the study would mean a shared culture, a reduction of role tensions and provision of adequate training and professional development for heads of department. (see Chapter 2, Figure 10, p. 142). It is through the systemic management of the culture, processes and resources of the school that the desired educational outcomes will be achieved.

6.4.5 Educational Outcomes (Box ix)

The desired educational outcomes for schools (see box ix in Figure 15, p. 337) are the 'Results' corresponding to the 'Enablers' in the SEM (see Table 1, p. 44; Appendix 3). These educational outcomes are:

- key performance results;

- administrative & operational results;

- partnership & society results;

- staff results.

(Ministry of Education, 2000).

'Key performance results' focus on the cognitive, physical, aesthetics, social and moral aspects of student development, leadership development and student morale. Heads of department are expected to ensure that in the cognitive domain students become independent learners, creative and practical problem-solvers and achieve good academic results and in the physical domain, maintain healthy lifestyles, keep fit, and participate actively and excel in sports and games. They are also to ensure students' aesthetic, social and moral development; and development of leadership potential and achievements related to improving their morale (Ministry of Education, 2000).

'Administrative & Operational Results' are related to the efficient and effective use of the physical, financial, teaching-learning resources, information and knowledge system and efficient and effective administrative processes (Ministry of Education, 2000).

'Partnership & Society' results refer to the benefits of partnership, and the school's impact on society focusing on what the school is achieving in relation to the partners and the community at large (Ministry of Education, 2000).

'Staff Results' relate to staff competence and morale with focus on what the school is achieving in relation to the training and development, and morale of its staff (Ministry of Education, 2000).


The proposed model on the role of heads of department (Figure 15) illustrates the findings of the study that the role of the heads of department in cluster secondary schools is contingent to a large extent on the contexts/environments in which they work.

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This model highlights the assumptions made in the conceptual framework (see Figures 9 & 10, pp. 138 & 142) of the importance of contextual influences on schools as depicted in changes in national policies and initiatives in line with the national vision of *Thinking Schools, Learning Nation* (TSLN) which are translated to the people in schools by way of school clusters and their superintendents. Given the external environment of the school cluster and the internal school culture, as shaped by the cluster superintendent and the school principal respectively, it is the leadership competence of the heads of department that determines how they can achieve the educational outcomes or goals of their schools. Hence the requisite competencies for heads of department in terms of leadership characteristics, and knowledge and skills as shown in the proposed model (see Figure 15, boxes vi and vii, p. 337; pp. 356-360) serve as benchmarks of the range of leadership skills that heads of department are expected to have in the changing Singapore educational landscape. In this respect, the competencies allow heads of department to reflect on where they are now in terms of capabilities and achievements and to chart their own professional development. The challenge ahead for heads of department is to produce the great leadership emphasised by Ng (2003) (see Chapter 2, p. 45). This, as described by Ng (2003), would be one in which 'the Principal, Vice-principal and Heads of Department (HODs) ... work together as a team with a common purpose... Only a united and committed school leadership team has the clout and power to make things happen. The school leadership team can affect the culture by their words and deeds, and put in place the necessary platform to sustain change' (p. 35) to achieve the national vision of *Thinking Schools Learning Nation* (TSLN).

6.5 A Conceptual Framework for the Role of HODs as Educational Leaders in Singaporean Schools

The data that have emerged from the research enable the study to postulate that in the context of school clusters in Singapore, the leadership role of heads of department can be viewed as a hierarchy of leadership roles. The research data clearly indicate that the leadership work of heads of department is not confined to only providing leadership within the internal context of their own schools in such 'traditional areas' as department, and whole-school management. Since the creation of clusters, the benchmark for the leadership role of heads of department appears to be leadership at a higher level in the wider cluster context. As the data have shown, the cluster 'platform' is where heads of department have '...the opportunity to showcase talents and abilities' (21); it is '...a good time to show their good performance' (95); and it is at the cluster level where they demonstrate and hone their leadership skills and develop confidence and competence '...to interact with other Principals and Vice-Principals...' (75) (see Chapter 4, pp. 226-227). In this regard, the *Model of Role of Heads of Department in Cluster Secondary Schools* (Figure 15) serves as an important strategy for a final conceptual framework concerning the leadership roles of heads of department in cluster secondary schools in Singapore. The final conceptual framework postulates several levels of leadership of the heads of department's role. These are: leadership at departmental level (Level 1), leadership at whole-school management level (Level 2) and leadership at cluster level (Level 3). This hierarchy of leadership roles is illustrated in Figure 17: *A Conceptual Framework for the Role of HODs as Educational Leaders in Singaporean Schools, 2006* below.

Figure 17: A Conceptual Framework for the Role of HODs as Educational Leaders in Singaporean Schools, 2006

Hierarchy of levels of leadership
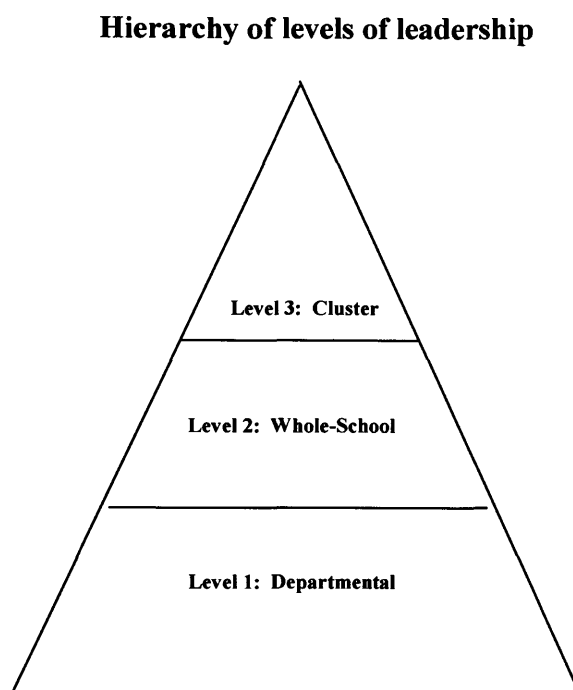
Selected Accountabilities or Key Result Areas (KRAs) pertaining to the 3 levels of leadership

Level 3
Charting Organisational Directions:
- Working with cluster and co-ordinate at cluster level to ensure consistency in the delivery & assessment of subject

Professional Development
- Facilitating the professional development of teachers by doing professional sharing at school/cluster level

Level 2
Charting Organisational Directions:
- Carrying out strategic planning & administration by contributing to school's short & long-term goal-setting, strategic planning & review processes
- Functioning as part of school's management team in respect of decisions relating to school's programmes and allocation of resources

Level 1
Charting Organisational Directions:
- Providing leadership and vision for the department and instructional programs in line with school goals and student needs

Development and management of staff
- identify training and developmental needs for the department and plan for relevant training activities

Management of pupil focused processes
- monitor and assess pupils' performance and development

Management of resources
- plan and manage allocated budget for instructional programmes across the different subjects under department

Professional development
- act as a mentor to teachers in school; provide expert knowledge in subject area and help teachers in the school

As mentioned above, Figure 17 shows the 3 levels of leadership roles pertaining to the work of heads of department as educational leaders in Singaporean schools as:

Level 1: departmental leadership;

Level 2: whole-school management leadership;

Level 3: cluster leadership.

As the research data indicate, a significant role expectation or Key Result Area (KRA) for school leaders (defined as those on the Leadership Track of the EPMS) is 'charting organisational directions'. As educational leaders in Singaporean schools, heads of department play this key role of 'charting organisational directions' at 3 organisational levels namely: departmental (Level 1), whole-school (Level 2), and cluster (Level 3), This can be seen in Figure 17 which shows the leadership role of heads of department at each successive level of the school cluster hierarchy.

At the department level (Level 1), heads of department chart organisational directions by providing leadership and vision for the department and instructional programmes in line with school goals and student needs. At this level their leadership is vital to their departmental teams to ensure that departmental goals are aligned to school goals to meet the desired educational outcomes.

At the whole-school level (Level 2), heads of department function as part of their school's management team to chart organisational directions by contributing to the school's short and long-term goal-setting, strategic planning and review process. At

this level heads of department contribute to the great leadership emphasised by Ng (2003) in which the principal, vice-principal and heads of department work together as a united and committed school leadership team to affect the school culture and put in place the necessary platform to sustain change so as to achieve the national vision of *Thinking Schools Learning Nation* (TSLN) (see Chapter 2, p. 45).

At the cluster level (Level 3), heads of department chart organisational directions by working with the cluster and coordinating at cluster level to ensure consistency in the delivery and assessment of subjects. At this external level the leadership work of heads of department takes on a collaborative nature; heads of department function as 'cluster heads of department' and engage in collaborative activities such as 'leading committees', 'professional sharing sessions' and 'subject support groups'. The collaborative leadership of heads of department at cluster level benefits their cluster schools as expertise, knowledge and leadership skills are shared to improve their schools' performance to meet the desired educational outcomes.

Another role which features prominently in the leadership work of heads of department as educational leaders in Singaporean schools is 'professional development'. As can be seen in Figure 17, at the department level (Level 1) heads of department have the responsibility for 'development and management of staff' by identifying training and developmental needs for the department and planning for relevant training activities; furthermore they are accountable for 'professional development' of their staff by acting

as mentor to teachers in school, providing expert knowledge in subject area and helping teachers in the school (see also Table 26, p.248). In Figure 17 it can also be seen that at the cluster level (Level 3), heads of department also facilitate the professional development of teachers by doing professional sharing at school/cluster level. This as explained above is effected through collaborative activities among cluster heads of department for the benefit of all the cluster schools.

In this respect the cluster leadership role of heads of department in Singaporean schools sets the role apart from the role of heads of department in other educational settings such as that of the UK. It is envisaged that the heads of department's leadership at cluster level will assume increasingly greater importance as the move towards a shared culture and vision among the cluster schools gathers momentum in tandem with the policy move towards a more diverse education system aimed at greater flexibility and innovation. A greater collaborative leadership at cluster level will be required of heads of department in the new educational landscape in Singapore where 'quality will be driven by teachers and leaders in schools, with ideas bubbling up through the system rather than being pushed down from the top' (Shanmugaratnam, 2005), and where schools are expected to take ownership of the changes that they desire, while the Ministry of Education's role will be '...to provide top-down support for bottom-up initiatives' (Shanmugaratnam, 2005).

6.6 Evaluation of the Research

6.6.1 Strengths

1. The study has used a combination of quantitative and qualitative methodologies in its investigation of the role of heads of department in secondary schools of a school cluster. Supplementing statistical data from the survey with descriptive data from the open responses of the survey and the interviews have injected variety and richness into the findings, while analysis of relevant official documents has been helpful in providing details on official (MOE) expectations about the role of heads of department in Singapore secondary schools. Although the sample is restricted to one cluster of 16 secondary schools in a geographical zone in Singapore and comprise 99 heads of department out of an original group of 132 giving a survey return rate of 75.0%, the research findings can be generalised to the secondary school cluster population of heads of department in Singapore with some confidence.

2. The study has established the nature of the leadership role of heads of department in the cluster context in Singapore and this can serve as a springboard for other studies to follow up in due course.

6.6.2 Limitations

1. The study adopted a multi-strategy research methodology or mixed method to collect data using a survey questionnaire followed by interviews, but without the two

being linked. The interviewees were selected by convenience and not on the basis of results and analysis from the survey which therefore implies issues of trustworthiness of the interview. However steps have been taken to achieve trustworthiness of the interview. These steps included i) triangulation of different sources of data whereby the interview findings were validated against corroborating evidence in two other sources of data, firstly, the survey data, and secondly, data from official documents (see pp.167-168; ii) member check which entailed returning interview transcripts to respondents who were asked to verify and comment on their accuracy (see p.168); and iii) a statement on the researcher's experience and biases explicitly stated (see pp. 200-201) to help readers understand her assumptions and biases, in contributing to the interpretation of the data. (see section on 'trustworthiness pp. 165-171).

2. The research involved only the heads of department of the secondary schools in the selected school cluster and hence much of the findings are based on how these heads of department interpret their role in context according to their experiences and also their perceptions of how their colleagues felt about the role. In hindsight, insight into the role of the heads of department could have been enhanced by soliciting alternative viewpoints from significant others working in the schools, for example, school leaders like the principal and/or the vice- principal. However this deficiency in sources of data is balanced to some extent by documentary analysis which helped in the verification of findings where applicable.

3. The questionnaire survey was carried out between the end of November 2000 and beginning of December 2000, which corresponded with the end of a school year and

respondents were given up to the end of the year to return the questionnaires by post. The onset of the school holidays (December) could be a possible reason for the non-return of some the questionnaires and the survey return rate of 75.0%. Although ideally, a bigger sample size with more heads of department would have been preferred as it is recognised that a larger sample can result in more views, the research findings could still be generalised to the secondary schools cluster population in Singapore with some confidence.

4. Although the study employed role theory in underpinning its conceptual framework, it recognised that there are some existing issues with role theory.

▪ First is the question of whether role theory is really a 'theory' as such or just a nomenclature (i.e. words and definitions etc) as the definitions in Table 2 (p. 100) might suggest. On this, the researcher's view is that irregardless of whether it might or might not be a theory, either way, its application can facilitate the development of theory.

▪ Second is the question of its usefulness in research since role theory has faded out of fashion for some 20 years, in much the same way as scholarship and research which are subject to 'fashions', for example, 'movements' such as school improvement and/or effectiveness, and the various approaches to leadership which are sometimes almost cyclical. A reason for this could be that as it stood in those early days, role theory was 'static', in that, it assumed that roles and role relationships were constant and unchanging and that it involved only people adopting/making role. This was, at least in part, because it was in the early stages of development as a theory and had not really been applied very much to research of real life situations. In this respect, role theory is not a useful theoretical model for dynamic environments in which constant changes are

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the norm. Thus, the question of role theory's relevance in today's educational landscape and the extent to which the theory takes into account the changing parameters that people in schools have to work in, as role is very dynamic. Everything changes all the time - the role of the role holder, the role of all other members of the role set, the internal and external environments, and the role holder's understanding of the role.

Nevertheless, despite its shortcomings, role theory has heuristic value for the study. An important dimension of research in educational management relates to the roles of people occupying certain management and other positions. An organisation primarily consists of its people and it is the actions of, and interactions between its people that give life to an organisation; and the roles of the people within an organisation encompass these actions and interactions. Investigating the roles of principals, deputies, middle managers and teachers involves consideration of the nature of role as a theoretical concept. Perhaps, role theory is suitable as a theoretical framework for the study of an individual (the role holder) or a group (the role set) although it would not be useful for examining organisations as a whole or general aspects of an organisation. Role concepts therefore provide a useful conceptual framework for studying managerial behaviour; the role perspective provides a theoretical framework for explicating how a manager affects and effects the expectations others hold of his/her behaviour in the job (Fondas & Stewart 1994). Concepts and terminology of role theory are useful in underpinning understanding of the interactions between the middle manager and the work environment and thus provides a suitable framework for analysing the tensions and pressures that heads of department face.

In this respect, role theory has its usefulness in the study of role of heads of department in cluster secondary schools in Singapore, as the study was explicitly an investigation into the 'role' of individuals in a 'school cluster' organisation. As the research examined the role of heads of department within a context which has undergone some fundamental changes, a consideration of role theory enabled key influences upon the role of heads of department to be identified, and their effects to be understood. The basic definitions of role and role set which inform that the role is based upon the perceptions, understandings and values of a number of people, including the role-holder, and that members of the role set each have a stake in the role, allowed potential problems and conflict situations such as role pressure, role strain and role conflict in the work environment to be perceived. For example, role theory was helpful in the identification and explanation of work pressures in the role of heads of department such as, the mediating or buffering role of heads of department which was found to be a source of sent role conflict, when heads of department tried to reconcile the demands of the cluster/cluster superintendent with the needs/expectations of their department members.

5. However it is recognised that the use of role theory in studying the role of individuals in the school context implies that there are issues of generalisability, in other words, to what extent the findings can be generalised to other situations. In this regard, the study is confident that the findings might be transferred to other clusters since their situations are similar if not identical, to the one studied, but given the specific context of Singapore, caution would be required in generalising the findings of this study to other different contexts as stated in the next section: Generalisations of Findings.

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6. Although local circumstances and changes initiated by the Ministry of Education have been considered when constructing the model of role of heads of department in cluster secondary schools, this remains a period of transitions. Even as this study is being written up, further changes to the education system have been announced by the Prime Minister at the 2005 National Day Rally Speech (Lee, 2005) and also by the Minister for Education at the MOE Work Plan Seminar 2005 (Shanmugaratnam, 2005) and these are likely to have impact on the model. Subsequent researchers need to assess how the latest changes have affected the heads of department's leadership role in Singapore schools.

6.6.3   Generalisability of Findings

The generalisability of the findings from the multi-strategy research methodology or mixed method used to collect data using survey, interview and documentary analysis has been strengthened by taking the following measures: firstly, ensuring validity and reliability for the survey, secondly, achieving trustworthiness and consistency of interview data and thirdly, ensuring validity and reliability for data from documents. (see pp. 163-172).

As discussed in Section 3.6: 'Validity and Reliability Issues' (see pp.168-170), generalisability implies the extrapolation from a sample to a population; it relates to whether the conclusions of a study have any larger import (Miles and Huberman, 1994); and whether the conclusions are transferable to other contexts (Lincoln & Guba, 1985). In quantitative studies, reliability is seen in the replicability of a study's findings.

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However, in qualitative studies, reliability is a problematic issue as qualitative researchers seek to 'understand the world from the perspective of those around it' (Merriam, 2005 p. 4) and it is likely that replication of a qualitative research will not produce the same results. Thus it is not feasible to set a benchmark for repeated measures to establish reliability in the conventional way (Merriam, 2005).

For the study on the role of heads of department in Singapore, reliability tests were conducted for the quantitative data of the pilot study as well as the main study using a test of internal reliability to determine whether the questionnaire was stable or consistent in measuring the concept of role. The reliability of the questionnaire was measured by the alpha coefficient to examine its internal consistency using the Cronbach's alpha, a commonly used test of internal reliability, and an estimate based on item inter-correlations and item variances. Generally, an alpha coefficient of 0.80 is viewed as an acceptable level of internal reliability although lower alpha coefficients have been accepted in some instances (Bryman, 2001). In the study, overall Cronbach alpha coefficients of 0.86 and 0.81 for the questionnaire employed, were obtained for the pilot study and the main study respectively (see pp.177 & 192-193) suggesting that the questionnaire is unidimensional and consistent. To ensure that validity was not compromised in the Singapore study, the survey data was compared with findings from other sources such as: interviews; checking of documents; and cross-checking findings with the pilot study.

For the interview the researcher took steps to ensure consistency of results rather than reliability (Guba *et al* (1989), as reliability is a problematic issue in qualitative research,

and it is not feasible to set a benchmark for repeated measures to establish reliability in the conventional way (Merriam, 2005) (see Section 3.6.2: pp.165-171). The strategies used by the researcher to increase the generalisibility of the interview findings to other particular situation/s were: triangulation, peer examination and audit trail. First, in triangulation (also used to achieve trustworthiness) (see pp.167-168), the interview findings were validated against corroborating evidence in two other sources of data namely, the survey data, and the data from official documents. The triangulation using multiple data sources (quantitative as well as qualitative data) showed that there was convergence of findings thereby affirming consistencies among the different findings as illustrated in Chapter 4. Second, peer examination involved verification of findings by two heads of department and a vice-principal from different secondary schools who provided comments which were positive and supported the interview findings presented in Chapter Four. Third, for the audit trail, the researcher left a clear trail by documentation of the events throughout the interview for interested others to track and duplicate the study (see Chapter 3, pp. 168-171).

In addition the study took steps to achieve trustworthiness of the interview to strengthen the 'reliability and validity' of the research. As explained in Section 3.10: Limitations (see pp. 209-210) and in Section 3.6.2 (see pp. 166-168) the researcher adopted the following strategies for discerning trustworthiness: i) triangulation of different sources of data whereby the interview findings were validated against corroborating evidence in two other sources of data, firstly, the survey data, and secondly, data from official documents. The triangulation using multiple data sources (quantitative as well as qualitative data) showed that there was convergence of findings thereby affirming consistencies among the

different findings (see pp.167-168); ii) member check which entailed returning interview transcripts to respondents who were asked to verify and comment on their accuracy (see p.168); and iii) a statement on the researcher's experience and biases explicitly stated (see pp. 200-201) to help readers understand her assumptions and biases, in contributing to the interpretation of the data. (see Chapter 3, pp. 165-168).

For documentary analysis the question of reliability is less problematic since for some documents such as minutes of meetings 'the data are in permanent form and hence can be subject to re-analysis, allowing reliability checks and replication studies' (Robson, 1994, p.243). However, for documentary analysis the validity issue arises from its weaknesses - the documents may not be prepared specifically for research as in a questionnaire (Cortazzi, 2002; Johnson, 1994). As a document 'already exists in a definitive form' (p. 58) and 'the research purpose may be different from the purposes behind the original document' (Johnson, 1994, p. 202) triangulation was used in the study as a means of cross-checking documentary data with interview and survey data to establish its validity. As Robson (1994) points out, 'the documents have been written for some purpose other than for the research, and it is difficult or impossible to allow for the biases or distortions that this introduces...[There is a] need for triangulation with other accounts [and] data sources to address this problem' (p. 243) (see Chapter 3, pp. 171-172).

Based on all the measures taken as described above, the study is confident that the findings might be transferred to other clusters in Singapore since their situations are similar if not identical, to the one studied. As explained in the sampling section (see

Chapter 3, p. 181), the selected cluster sample comprised a mix of schools in terms of age, size and type of school (e.g. neighbourhood, autonomous etc) and similar to other clusters, it had government schools and government-aided schools and the majority of the schools were neighbourhood schools. As such the sample cluster of secondary schools could be considered reasonably representative of the secondary schools in Singapore. The rationale for this is that in Singapore, schools are spread out all over the island state and there is a good mix of government schools and government-aided schools. Zoning of schools is done geographically and not because of distinguishing factors such as socio-economic background or quality of schools and every zone has its fair share of primary schools, secondary schools and junior colleges with the majority being neighbourhood schools. Therefore any school in one zone would be representative of any other school in any other zone. However given the specific context of Singapore, caution would be required in generalising the findings of this study to other different contexts.

6.7   Implications for Practice and Research

It is hoped that this study has shed some light on the role of heads of department in cluster secondary schools in Singapore. However as the findings have raised certain concerns it is necessary to consider the implications of the study for school administration and future research.

There seems to be a need to assess and review the approach and processes taken by schools to implement change where it matters, that is, the teachers' level and the

classroom. Although the heads of department have the responsibility of mediating expectations of their organisational leaders to those they lead i.e. the teachers, there is the question of whether they are given the necessary support and the time to do so effectively. Where changes come fast and furious, and continually, like in Singapore, there is a concern that those on the ground may not have the understanding quickly enough to see the changes through effectively or with conviction. Managing in the middle, heads of department may not have enough time to grasp the changes before they translate it to their staff. Even at the point of writing this report, new expectations have been added to those faced by heads of department. With a new minister at the helm of the Education Ministry in 2004, ranking of schools has now been played down and more emphasis placed on broad-based education; selection of secondary schools after the Primary School Leaving Examinations (PSLE) at primary six has seen some rules relaxed and pupils and schools need not be rigidly controlled by academic results i.e. PSLE t-scores; furthermore, a second language is no longer required for entry to university. These are just some of the changes that have been introduced since the present study was carried out with the EPMS being one of the most significant in terms of impact on the role of the heads of department.

In terms of practice what seems to be needed in cluster secondary schools is for school leaders (as well as the superintendent) to tap the synergetic benefits of collegiality by carefully fostering collegial interactions as a more permanent feature of the social and cultural structure of not only the cluster but within each school. As pointed out by Ho (1982) the importance of work-related interaction lies in the opportunities it creates for influence in decisions about the task of teaching. The evidence from this study seems to

indicate that there is a general positive feeling among heads of department towards 'collaborative collegiality' (Hargreaves and Fullan, 1991) or 'working together' (Teo, 1999) on a professional level, although it has to be realised that the degree of the interaction will depend on 'perceived costs and benefits in involvement... in terms of time and psychological energy and the uncertainty whether their participation carries with it any influence on final decisions' (Ho,1982, p. 212). It seems justifiable to argue that heads of department would prefer collegial structures in task-centred committees or support groups to alternatives such as administrative structures for example, unilateral decision-making by the principal. While evidence from the findings of the study point to many examples of meaningful collaborative activity at the cluster level among heads of department, there is less evidence at the school, or departmental level. There seems to be a need for a more flexible social structure in the school to allow for a stronger upward influence across organisational levels. There is much potential for a culture of collegial collaboration to be realised at the departmental level for as Huberman (1993) points out, the department as the unit of collaborative planning and execution in a secondary school is where people have concrete things to tell each other.

However, while efforts by heads of department to build a culture of collegial collaboration in their departments and schools are desirable, there seems to be a need for school leaders to create the right environment for working together, for as the Minister for Education has emphasised, it should be 'a challenging yet nurturing work climate' (Teo, 2001, p. 8). What the findings have shown is that time constraints and role overload have made it difficult for a collegial culture to flourish. Furthermore, although the benefits of collaborative interactions at cluster level have been acknowledged, the

question that arises is to what extent the collaborative collegiality is spontaneous and voluntary, or contrived. It seems the latter is more likely the case, as there appears to be some 'resistance' to these collaborative activities and also it is less likely that heads of department, faced with a lack of time, would have the spontaneity to form collaborative cluster subject groups and participate willingly in their professional meetings or sessions. Where collaborative interactions at the cluster level are administratively regulated, as is most often the practice, by committees led by principals or vice-principals, it may be perceived as a matter of compulsion, and raises questions as to whether the compulsion is direct, or indirect. As illustrated by Hargreaves (1989a) this could be in terms of promises of promotion and veiled threats of withdrawal of support for specific projects. Where the collegiality is contrived, schools must make provision for the collaborative effort, by finding time for collaboration (Raywid, 1993), for collegiality is greatest when space, time, and other forms of support for collaborative interaction are available (Bird and Little, 1983).

In this regard, there seems to be a need for a review of workload of heads of department particularly in two areas:

- Firstly, the administrative work done by heads of department with a view of reducing these duties, as the findings have revealed that heads of department are constrained by their large portfolio of administrative tasks at the expense of their management functions such as monitoring and evaluation.

- Secondly, activities organised at cluster level to which heads of department are 'obliged' to subscribe but are not explicitly spelt out* as part of their duties and

responsibilities resulting in role conflict and role strain. (*This has to some extent been addressed by the EPMS document which has included cluster responsibilities in the KRAs or competencies required of heads of department)

There also seems to be a need to review the training for heads of department:

- Firstly, pre-training for aspiring heads of department should be instituted as currently there is no such provision and teachers deemed to have 'high potential' for leadership position are promoted to the post of head of department, inadequately prepared for the role and not fully aware of the expectations associated with the role as the findings have indicated.

- Secondly, in-post head of department training should be speeded up as there appears to be a back-log of heads of department who have yet to be formally trained. Some possible reasons for this have been postulated such as schools finding it difficult to release incumbents for a relatively long stretch of a few months, four to be exact, for the current professional course. Other reasons could be that incumbents may be reluctant to leave their departments for this relatively long period as there may be problems of covering their duties in their absence. The question of a competent person to cover duties of the head of department is important and calls for careful planning by each school so that in the absence of the heads of department, pressing departmental issues will be taken care of.

6.8 Further Research

a) Training for Heads of Department

Firstly, although the training model (DDM) is currently in use for incumbent heads of department, research is needed to evaluate if it is adequately meeting the current as well as future needs of heads of department in the light of the study's findings that some heads of department did not find it as useful as was thought to be. This seems to correspond with evidence in the literature that external management training courses has not had much positive effect on the quality of leadership in school (Glover et al, 1998).

Secondly, more research appears to be needed to establish whether the 'informal training' provided by cluster-based sharing sessions are having any discernible effect on improving teaching and learning, as the findings have revealed that heads of department seem to have found the cluster-based professional sharing sessions very beneficial in enhancing their departmental management and leadership skills.

Thirdly, as heads of department seem to have also benefited from 'on the job training' more research into this aspect of building the capacity of middle managers would be beneficial to schools which are looking for a comprehensive training package for their key personnel.

Fourthly, whilst most heads of department have expressed positive feedback on the benefits of various forms of 'training' facilitated by the cluster there is also concern that

the collaborative cluster activities have become an added burden on heads of department constrained by inadequate time and role overload within their schools. As such there seems to be a need for more research on the value of collegial collaboration in the professional development of heads of department.

b)   Time to Manage and Lead

Although the findings reveal that some heads of department have indicated that they are able to cope with the pressures of the role in spite of their large portfolio of tasks, it is also evident that lack of time is a major constraint preventing heads of department from carrying out all their tasks. The study is in agreement with Turner's (2003) suggestion that there should be more research on the topic of lack of time pertaining to two key questions:

i)   To what extent are subject leaders able to cope with all the diverse tasks when there is clear evidence that there is little time or no time allocated to them?

ii)   To what extent are they able to delegate their responsibilities to others?
(Turner, 2003, p.224).

6.9   Conclusion

The study has achieved its main aim of investigating how heads of department in secondary schools in a school cluster in Singapore, view and interpret their role in the light of major contextual changes in Singapore's education system in support of the national vision of *Thinking Schools Learning Nation* (TSLN), and in particular a major

educational reform: the *School Cluster* system (see Chapter 1, pp. 33-34).

The study finds that external educational policy changes have impacted significantly the work that heads of department do in cluster schools, and confirms that 'powerful external pressures at national and local level can define what actions a school may take internally' (Busher *et al*, 2000, p.12) and force middle managers and school leaders to 'develop coherent policies ...to be able to manage successfully how they carry out and change practice...' (Busher, 2001, p. 3) (see Chapter 2, pp. 37-38).

Key national education policy changes in the Singapore context under the *Thinking Schools Learning Nation* (TSLN) umbrella, which have impact on the role of heads of department are: the *School Cluster* system, a new approach of managing schools in administrative clusters; the *School Excellence Model* (SEM), a new internal self-appraisal tool for schools; and the *Enhanced Performance Management System* (EPMS) for performance appraisal in the education service (see Chapter 2, pp. 40-49).

The *School Cluster* system which introduced the management of clusters of schools as administrative units by cluster superintendents has resulted in an extension of the hierarchical structure beyond the principal's authority in the schools to the cluster superintendent as the highest authority in the school cluster. The clustering of a number of schools together has inevitably resulted in the use of benchmarking for performance of schools as well as middle managers such as heads of department, as seen in the annual cluster-based performance appraisal and ranking exercise of heads of department (as well as school leaders) with further implications for promotions. Moreover, as a result of the

establishment of a culture of collaboration in the school cluster, the role of heads of department has been expanded to include a cluster role. This cluster role has been identified as the cause of much of the role ambiguity, role conflict and role strain faced by heads of department in cluster schools. Ambiguity surrounding the cluster role stems from a lack of a clear definition about the role leading to the perception that cluster work has contributed to the role overload and exacerbated the time constraint. The cluster role has also given rise to conflicting expectations from an enlarged role set which now includes the cluster superintendent, principals and vice-principals and fellow heads of department from other cluster schools. The pressure and stress of having to perform multiple roles at four levels in the hierarchical organisational structure, that is, classroom, department, whole-school and cluster has impacted negatively their satisfaction with the role as well as commitment to staying on in the role.

The introduction of the *School Excellence Model* (SEM), a new internal self-appraisal tool for schools; and the *Enhanced Performance Management System* (EPMS) for performance appraisal in the education service has focused attention on the leadership role of heads of department. As implied in the *School Excellence Model* (SEM), for schools to achieve 'excellence' status requires that heads of department together with their school leaders that is, principals and vice-principals, as the leadership team, propel the whole school forward. This amplifies the whole-school responsibility of heads of department. Reflecting the importance of the leadership role, the SEM's scoring system has assigned ten percent of its weighting to leadership, and Ng (2003) highlights that 'the challenges in developing school excellence are so demanding that the need for high quality and committed leaders becomes paramount' (p. 35) and 'the Principal, Vice-

principal and Heads of Department (HODs) should work together as a team with a common purpose...Only a united and committed school leadership team... can affect the culture by their words and deeds, and put in place the necessary platform to sustain change' (p. 35). The SEM has introduced a new paradigm of how leaders develop the school vision and set focus and direction; ensure the development, implementation and continuous improvement of the school's management system; communicate school values to all stakeholders; and role-model commitment to excellence in their actions. School leaders involve staff in school improvement; conduct dialogue sessions and establish feedback mechanisms. Ng (2003) aptly sums up the expectations of the role of middle managers and school leaders in this new paradigm of a more participative management style:

'Greater leadership is required than ever before. In a sea of voices and opinions generated from a more participative management style, it will take great leadership to find the best strategy, explain and convince the people, urge the people forward, manage transition, stay focused and get results' (p.35).

The finding that the work culture is collegial in both the school as well as the cluster contexts, and that schools are moving towards a shared culture show that heads of department together with their school leaders have made some headway in providing the much needed leadership to steer their schools towards excellence.

The emphasis on the leadership role of heads of department is also evident in the

Enhanced Performance Management System (EPMS) for performance appraisal, which has placed middle managers such as heads of department on the Leadership Track (as distinct from the Teaching Track), and explicitly defined the role and spelt out the expectations of heads of department in terms of Competencies or Key Result Areas under the Leadership Track.

Viewed against the expectations of heads of department as described in the leadership competencies of the EPMS it is not surprising that the study finds that the training and professional development needs of heads of department have not been adequately met and that there is a need to institute formal training for potential heads of department and to speed up the formal training for incumbent heads of department. The study also finds much potential in utilising 'learning on the job' and 'collegial collaboration' in the professional development of heads of department.

The study has pulled together the findings based on the themes of 'work culture', 'role tensions' and 'training and professional development' and incorporated them within the unique internal and external contexts in which heads of department operate to propose a Singapore model of the role of heads of department in cluster secondary schools. The model has explained how the work that heads of department do is shaped by the environmental culture, and built its components on the impact of recent policy changes in the Singapore education service which have transformed the way schools are managed and how heads of department and their staff are appraised. Essentially, the unique Singapore context is related firstly, to the *School Cluster* system which, as has been explained above, is one of the *Thinking Schools, Learning Nation* (TSLN) initiatives

which has transformed schools into administrative school clusters managed by cluster superintendents and created a collaborative cluster role for heads of department to demonstrate leadership and creativity; and secondly, the emphasis on the leadership role of heads of department to meet changing demands and expectations in the internal appraisal of schools and the performance management of education officers as described in the *School Excellence Model* (SEM), and the *Enhanced Performance Management System* (EPMS) respectively. The Singapore *Model of the Role of Heads of Department in Cluster Secondary Schools* (Figure 15) will be useful in providing a snapshot of the scope and complexity of the heads of department's role and its key determinants while the *Conceptual Framework for the Role of HODs as Educational Leaders in Singaporean Schools, 2006* (Figure 17) which postulates the unique hierarchical leadership roles of Singaporean heads of department arising from the operation of school clusters, presents succinctly the nature of the leadership role of heads of department in the Singapore education system.

In the main, the findings of the study may be usefully interpreted as suggestions and leads for further study of the role of heads of department in other cluster settings, for example, a cluster of primary schools or a mixed cluster of primary schools, secondary schools and junior colleges. Since this study was embarked on, many more changes have been made within and among clusters, notably the rotation of superintendents, the re-shuffling of schools in and out of clusters, the composition of schools in clusters and the size of clusters, thereby raising concerns on the issue of 'stability'. Taken in this light, the study has heuristic value in that it has shed some light on how a major reform in the Singapore education system i.e. the *School Cluster* system has impacted the role of heads of

department in secondary schools. In brief, the relevance of this investigation to future research and current administrative practices in cluster schools should be evaluated with the shortcomings of an exploratory study in mind, conducted in a setting that has no empirical research precedents.

REFERENCES

Adey, K. (2000), 'Professional development priorities: the views of middle managers in secondary schools', *Educational Management and Administration*, vol. 28, no. 4, pp. 419-431.

Adey, K. and Jones, J. (1998), 'Development needs of middle managers: the views of senior managers', *Journal of In-Service Education*, vol. 24, no. 1, pp. 131-144.

Astuto, T. A., Clark, D.L., Read, A-M., McGree, K. and Fernandez, L. deK.P. (1993), *Challenges to Dominant Assumptions Controlling Educational Reform*, Andover, MA: Regional Laboratory for the Educational Improvement of the Northeast and Islands.

Barber, M. (1998), 'The dark side of the moon: imagining an end to failure in urban education', in L. Stoll & K. Myers, (eds.), *No Quick Fixes: Perspectives on Schools in Difficulty*, London, Falmer Press.

Baron, S., Hall, S., McCreath, D., Roebuck, M. and Wilkinson, E. (2001), 'Glasgow's learning communities', *Research in Education*, *SCRE Newsletter*, no. 69

(ONELINE - http//www.scre.ac.uk/rie/n169/n169glasgow.html-5/8/2005).

Barton, A. & Lazarsfeld, P. (1969), 'Some functions of qualitative analysis', in G. Macall & J. Simmons, (eds.), *Issues in Participant Observation*, Addison, Wesley, Reading.

Bell, J. (1987), *Doing Your Research Project*, Milton Keynes, Open University Press.

Bell, J. (2002), 'Questionnaires' in M. Coleman and A.R.J. Briggs, (eds.), *Research Methods in Educational Leadership and Management*, London, Paul Chapman.

Bell, L. (2003), 'Strategic planning in education: a critical perspective', in B. Davies and J. West-Burnham, (eds.), *Handbook of Educational Leadership Management*, London, Pearson Longman.

391

Bennett, N. (1995), *Managing Professional Teachers: Middle Management in Primary and Secondary Schools*, London, Paul Chapman.

Bennett, N. (1999), 'Middle management in secondary schools: an introduction', *School Leadership and Management*, vol. 19, no.3, pp. 289-292.

Berger, P. and Luckman, T. (1966), *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, New York, Doubleday.

Best, J.W. and Kahn, J.V. (1998), *Research in Education*, (8th edn.), Boston, Allyn and Bacon.

Best, R and Ribbins, P., Jarvis, C. with Oddy, D. (1983), *Education and Care*, London, Heinemann.

Biddle, B.J. & Thomas, E.J. (1966), *Role Theory - Concepts and Research*, New York, John Wiley & Sons.

Binkowski, K., Cordeiro, P., & Iwanicki, E. (1995), 'A Qualitative Study of Higher and Lower Performing Elementary Schools' paper presented at the Annual Meeting of the American Educational Research Association, San Francisco.

Bird, T. and Little, J. (1983), 'Finding and Founding Peer Coaching' paper presented at the Annual Meeting of the American Educational Research Association (AERA), Montreal.

Blase, J. and Anderson, G. L. (1995), *The Micropolitics of Educational Leadership: From Control to Empowerment*, London, Cassell.

Blau, J.R, and Gordon, N., (1991), *Social Roles and Social Institutions: Essays in Honour of Rose Laub Closer*, Boulder, Co, Wetsview Press.

Bloomer, R.G. (1980), 'The role of the head of department: some questions and answers', *Educational Research*, vol. 22, no.3, pp. 83-96.

Bolam, R. & Turner C.K. (2003), 'Heads of secondary school subject departments and the improvement of teaching and learning' in M. Wallace, & L. Poulson, *Learning to Read Critically in Educational Leadership and Management*, London: Sage Publications.

Bolton, A. (2000), *Managing the Academic Unit,* Milton Keynes, Society for Research in Higher Education and Open University Press.

Bradley, C. and Roaf, C. (1995), 'Meeting special educational needs in the secondary school: a team approach', *Support for Learning*, vol. 10, no. 2, pp. 93-99.

Brown, M. and Rutherford, D. (1998), 'Changing roles and raising standards: new challenges for heads of department', *School Leadership and Management*, vol.18, no.1, pp.75-88.

Brown, M., Boyle, R. and Boyle, T. (1999), 'Commonalities between perception and practice in models of school decision-making in secondary schools', *School Leadership and Management*, vol. 19, no. 3, pp.319-330.

Brown, M., Rutherford, D. and Boyle, B. (2000), 'Leadership for school improvement: the role of the head of department in UK secondary schools', *School Effectiveness and School Improvement*, vol. 11, no. 2. pp. 237-258.

Bryman, A. (2001), *Social Research Methods*, London, Oxford University Press.

Burnham, P. (1969), 'Role theory and educational administration', in G. Baron, and W.Taylor, (eds.), *Educational Administration and the Social Sciences*, London, The Athlone Press.

Burns, R. B. (2000), *Introduction to Research Methods*, London, Sage Publications.

Bush, T. (1981), 'Key roles in school management', *E323 Management and the School*, Milton Keynes, The Open University.

Bush, T. (1983), 'The role of the vice principal in further and higher education', *Journal of Further and Higher Education*, vol. 7, no. 3, Autumn.

Bush, T. (2002), 'Authenticity – reliability, validity and triangulation' in M. Coleman, and A.R.J. Briggs, (eds.), *Research Methods in Educational Leadership and Management*, London, Paul Chapman.

Busher, H. (1988), 'Reducing role overload for a head of department: a rationale for fostering staff development', *School Organisation*, vol. 8, no.1, pp. 99-108.

Busher, H. (1998), 'Educational leadership and management: contexts, theory and practice' in P. Clough, (ed.), *Managing Special and Inclusive Education*, London, Paul Chapman.

Busher, H. (2001), 'Managing change: a middle leader perspective', in M. Calvert, J.A. Harvey and B.A. Cole, (eds.), *Managing Change*, Sheffield, Philip Armstrong.

Busher, H. (2002), 'Managing change to improve learning', in T. Bush and L. Bell, (eds.), *The Principles and Practice of Educational Management*, London, Paul Chapman.

Busher, H. and Harris, A. (1999), 'Leadership of school subject areas: tensions and dimensions of managing in the middle', *School Leadership and Management*, vol. 19, no. 3, pp. 305-317.

Busher, H. and Harris, A.(2000), *School Leadership and School Improvement*, London, Paul Chapman.

Busher, H. and Saran, R. (1995a), 'Managing with support staff', in H. Busher and R. Saran, (eds.), *Managing Teachers as Professionals in Schools*, London, Kogan Page.

Busher, H., Barker, B. amd Wortley, A. (2000) 'School Leaders and Organisational Change in Turbulent Circumstances' paper presented at the British Educational Management and Administration Society (BEMAS) Annual Conference, Robinson College, Cambridge, March 2000.

Busher, H. and Harris, A. with Wise, C. (2000), *Subject Leadership for School Improvement*, London, Paul Chapman.

Caldwell, B. (1998), *Self-Managing Schools and Improved Learning Outcomes*, Canberra: Department of Employment, Education, Training and Youth Affairs.

Campbell, J. (1988), 'Conflict and strain in the postholder's role' in R. Glatter, M. Preedy, R. Riched, and M. Masterton, *Understanding School Management*. Milton Keynes, O.U. Press.

Campbell, R.J., Penny and Southworth, G. (1992), 'Rethinking collegiality: teachers' view', in N. Bennett, M. Crawford, and C. Riches, (eds.), *Managing Change in Education: Individual and Organizational Perspectives*, Open University, Paul Chapman.

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Castle, J.B. (1997), 'Toward understanding professional development: exploring views across a professional development school', *Theory and Practice*, vol. 3, no.2, pp.221-242.

Chan, K.H. (1990), 'The participation of middle managers in the management of Singapore secondary schools', unpublished M. Ed Thesis, Nanyang Technological University, Singapore.

Chitty, C. (1993), *The National Curriculum: Is it working?*, Harlow, Longman.

Chong, K. and Low, G.(1989), 'Training for HODs – the FPDE programme', *Singapore Educator,* Issue no. 8, pp.13-14.

Cibulka, J., Coursey, S., Nakayama, M., Price, J. and Stewart, S. (2000), 'Schools as learning organisations: a review of the literature' (ONELINE – http://www.ncsl.org.uk/media/F7B/94/randd-engaged-cibulka.pdf-12/20/2006).

Cockroft Report (1982), *Mathematics Counts,* London, HMSO.

Cohen, L. and Manion, L. (1994), *Research Methods in Education*, (4th edn.), London, Routledge.

Cooper, R., Slavin, R. E. and Madden N. A. (1998), *Success For All: Improving the Quality of Implementation of Whole-School Change Through the Use of a National Reform Network*, Baltimore: The Johns Hopkins University,

Cortazzi, M.(2002), 'Analysing narratives and documents', in M. Coleman, and A.R.J. Briggs, (eds.) *Research Methods in Educational Leadership and Management,* London, Paul Chapman.

Coulson, M. A. (1972), 'Role: a redundant concept in sociology? Some educational considerations', in J.A. Jackson, *Role*, Cambridge, The University Press.

Creemers, B. (1992), 'School effectiveness and effective instruction - the need for a further relationship', in J. Bashi, and Z. Sass, (eds.), *School Effectiveness and Improvement*, Hebrew University Press.

Creswell J. W. (1994), *Research Design: Qualitative and Quantitative Approaches*, Thousand Oaks, California: Sage Publications.

Crowther, F., Hann, L. and McMaster, J. (2001), 'School innovation: pathway to the knowledge society – Chapter 6 – Leadership' (ONELINE-http://www.dest.gov.au/sectors/school_education/publications_resources/school_innovati...11/22/2006).

Crowther, F., Kaagan, S, Ferguson, M. and Hann, L. (2002), *Developing Teacher Leaders: How Teacher Leadership Enhances School Success*, California, Thousand Oaks.

Darling-Hammond, L. (1996), 'The quiet revolution: Rethinking teacher development', *Educational Leadership*, vol. 53, no.6, pp. 4-10.

Deem, R. (2000), ' "New managerialism" and the management of UK universities', in Smith, R.E. (2002), 'The role of the university head of department', *Educational Management and Administration*, vol. 30, no.3, pp.293-312.

Denzin, N.K. and Lincoln, Y.S. (1994), 'Introduction: entering the field of qualitative research', in N.K. Denzin & Y.S. Lincoln (eds.), *Handbook of Qualitative Research*, Thousand Oaks, CA: Sage.

Department of Education and Science (DES) (1977), 'HMI series: matters for discussion 1', *Ten Good Schools: A Secondary School Enquiry*, London, Her Majesty's Stationery Office.

Department for Education and Skills (DfES), (2003), 'School improvement and excellence' (ONELINE –
http://www.standards.dfes.gov.ul/sie/eic/exclusters/- 4/28/2005).

Doraisamy, T.R. (1969), *150 Years of Education in Singapore*, Teachers' Training College, Singapore.

Doyle, J. K. (2005), 'Introduction to survey methodology and design' (ONELINE –
http://www.sysurvey.com/tips/introduction_to_survey.htm-8/20/2005).

Duffy, B. (1987), 'The analysis of documentary evidence', in J. Bell, (1993), *Doing Your Research Project*, (2nd edn.), Milton Keynes, Open University Press.

Dufour, R. (1997), 'The school as a learning organization: recommendations for school improvement', *National Association of Secondary School Principals Bulletin*, vol 81, no. 588, pp.81-87.

Dunham, J. (1978), 'Change and stress in the head of department's role' *Educational Research*, vol. 21, no.1, pp. 44-48.

Dunham, J. (1984), *Stress in Teaching*, Buckingham, Croom Helm.

Earley, P. (1998), (ed.), *School Improvement After Inspection? School and LEA Responses,* London, Paul Chapman.

Earley, P. and Fletcher-Campbell, F. (1989), *The Time to Manage*, London, Routledge.

Easterby-Smith, M., Thorpe, R. and Lowe, A. (1994), 'The philosophy of research design', in N. Bennett, R. Glatter and R. Levacic, (eds.), *Improving Educational Management Through Research and Consultancy*, London, Paul Chapman .

Educational Quality Improvement Program (EQUIP), (2004), 'Cluster schools and teacher professional development', *E Q Review*, vol. 2, no. 2, pp. 1-4 (ONELINE – http://www.equip123.net/EQ_Review/2_2.pdf-4/28/2005).

Ellis, S. (1996), 'Staff development is the key to school reform: an interview with Efrain Vila', *Journal of Staff Development*, vol.17, no. 4, pp. 52-50.

Elton, G.R. (1967), 'The practice of history', (quoted in Duffy, B. (1987), 'The analysis of documentary evidence'), in Bell, J. (1993), *Doing Your Research Project*, (2nd ed.), Milton Keynes, Open University Press.

Ernest, P. (1989), 'Head of the secondary school mathematics department: a demanding role', *School Organisation*, vol. 9, pp. 319-337

Fiedler, F.E. (1967), *A Theory of Leadership Effectiveness*, New York, McGraw-Hill.

Field, K., Holden, P. & Lawlor, H. (2000), *Effective School Leadership,* London, Routledge.

Fielding, M. (1996), 'The muddle in the middle', *School Management Update, Times Educational Supplement*, 19 January.

Fogelman, K. (2002), 'Surveys and sampling' in M.Coleman, and A.R.J. Briggs, (eds.), *Research Methods in Educational Leadership and Management*, London, Paul Chapman.

Fondas, N. & Stewart, R. (1994), 'Enactment in managerial jobs: a role analysis', *Journal of Management Studies,* vol. 31, no.1, pp.83-103.

Fowler, F. (1993), *Survey Research Methods,* Newbury Park, California, Sage.

Frohman, A. And Johnson L. W. (1993), *The Middle Management Challenge: Moving from Crisis to Empowerment,* New York, McGraw-Hill.

Gall, M.D., Gall, J.P. And Borg, W.R. (2003), *Educational Research,* Boston, Allyn and Bacon.

Gannicott, K. (1998), *School Autonomy and Academic Performance,* Canberra: Department of Employment, Education, Training and Youth Affairs.

Getzels, J. W. (1958), 'Administration as a social process', In A. W. Halpin (ed.), *Administrative Theory in Education,* Chicago: The Midwest Center, University of Chicago.

Getzels, J. W., and Guba, E.G. (1954), 'Role, role conflict and empirical study', *American Sociological Review,* April, p. 424.

Getzels, J.W., Lipman, J.M., & Campbell, R.F. (1968), *Educational Administration as a Social Process: Theory, Research, Practice,* New York, Harper and Row.

Gewirtz, S., Ball, S. J. and Bowe, R. (1995), *Markets, Choice and Equity in Education,* Buckingham, Open University Press.

Giddens, A. (1984), *The Constitution of Society,* Cambridge, Polity Press.

Gillham, B. (2000b), *Developing a Questionnaire,* London, Continuum.

Glatter, R.(1997), 'Context and capability in educational management', *Educational Management and Administration,* vol. 25, no. 2, pp.181-195.

Glover, D and Miller, D. (1999), 'The working day of the subject leader and the impact of interruptions on teaching and learning in secondary schools', *Research in Education,* vol. 6, no.2, pp.55-65.

Glover, D. Gleeson, D., Gough, G. and Johnson, M.(1998), 'The meaning of management: the development needs of middle managers in secondary schools', *Educational Management and Administration,* vol. 26, no. 3, pp. 279-292.

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Glover, D.and Miller, D. with Gambling, M., Gough, G. and Johnson, M. (1999), 'As others see us: senior management and subject staff perceptions of the work effectiveness of subject leaders in secondary schools', *School Leadership and Management* , vol.19, no. 3, pp. 331-344.

Goh C. T. (1988), 'What makes a good school? What makes a good country?' *Speeches* vol. 12, no. 4, Singapore: Information Division, Ministry of Communications and Information.

Goh, C. T. (1997), 'Shaping our Future: Thinking Schools, Learning Nation' text of speech at the opening of the Seventh International Conference on Thinking, 2 June, Singapore.

Golafshani, N. (2003), Understanding reliability and validity in qualitative research, *The Qualitative Report*, vol, 8, no. 4, pp. 597-607 (ONELINE – http://nova.edu/ssss/QR/QR8-4/golafshani.pdf-4/12/2005).

Goode, W. J. (1960), 'A theory of role strain', *American Sociological Review*, vol. 25, pp. 161-168.

Goodson, I. (1996), *Studying School Subjects*, London, Falmer Press.

Gopinathan, S. (1996), 'Globalization, the state and education policy in Singapore', *Asia Pacific Journal of Education*, vol. 16, no. 1, pp 74-87.

Gopinathan, S. (2001), 'Globalization, the state and education policy in Singapore', in J. Tan, S. Gopinathan and W.K. Ho, (eds.), *Challenges Facing the Singapore Education System Today*, pp. 3-16. Singapore, Prentice Hall.

Gorard, S. (2001), *Quantitative Methods in Educational Research,* London, Continuum.

Grace, G. (1995), *School Leadership: Beyond Education Management: An Essay in Policy Scholarship*, London, Falmer Press.

Guba, E. G. (1981), 'Criteria for assessing the trustworthiness of naturalistic inquiries', *Educational Communication Technology Journal*, vol. 29, no. 2, pp. 75-91.

Guba, E. G., and Lincoln, Y.S. (1989), *Fourth Generation Evaluation*, Newbury Park, CA: Sage Publications.

Hall, V. (1997), 'Management roles in education', in T. Bush, and D. Middlewood, (eds.), *Managing People in Education*, London, Paul Chapman.

Hammons, J. (1984), 'The department/division chairperson: educational leader?', *Community and Junior College Journal*, March 1984.

Handy, C. (1985), *Understanding Organizations*, Harmondsworth, Penguin Books.

Hannay, L. M. and Ross, J. A. (1999), 'Department heads as middle managers? Questioning the black box', *School Leadership and Management*, vol. 19, no. 3, pp. 345-358.

Hargreaves, A. (1989a), 'Contrived collegiality: the micropolitics of teacher collaboration', in J. Blase, (ed.), *The Politics of Life in Schools*, Newbury Park, Sage Publications.

Hargreaves, A.. (1994), *Changing Teachers, Changing Times: Teachers' Work and Culture in the Postmodern Age*, London, Cassell.

Hargreaves, A. and Fullan, M.G. (1991), *Understanding Teacher Development*, New York, Teacher College Press.

Hargreaves, D.H., (1972), *Interpersonal Relations and Education*, London, Routledge & Kegan Paul.

Harris, A. (1998), 'Improving ineffective departments in secondary schools: strategies for change and development', *Educational Management and Administration*, vol. 26, no.3, pp. 269-278.

Harris, A. (2000), 'Effective leadership and departmental improvement', *Westminster Studies in Education*, vol. 23, pp. 81-90.

Harris, A., Jamieson, I. M. and Russ, J. (1995), 'A study of effective departments in secondary schools', *School Organisation,* vol.15, no.3, pp. 283-299.

Harris, A.., Day, C. and Hadfield, M. (2000) 'Effective Leadership in Times of Change' paper presented at the British Educational Management and Administration Society (BEMAS) Annual Conference, Cambridge, March 2000.

Harris, A.., Busher, H. and Wise, C. (2001), 'Effective training for subject leaders', *Journal of In-Service Education,* vol. 27, no.1, pp. 83-94.

Heiss, J. (1981), 'Social roles' in M. Rosenberg, and R.H. Turner, *Social*

Psychology: Social Perspectives, New York, Basic Books.

Heyrman, J., and Goedhuys, J. (2005), 'The multiple key informant survey: a method for the comparison of international qualitative data' (ONELINE - http//euract.org- 4/12/2005).

HMI Wales (1984), *Departmental Organisation in Secondary Schools*, London, HMSO.

Ho. W.K. (1982), 'Decision domains & staff participation: a study of teacher-principal relationships in primary schools', unpublished doctoral thesis, University of Chicago.

Ho, W. K. (2006), *Education in Singapore: Focusing on Quality and Choice in Learning, A Country Report 2006*, Singapore Teachers' Union, Singapore.

Hodgkinson, C. (1991), *Educational Leadership - The Moral Art* (7th edn.), Albany, NY, State University of New York Press.

Hoepfl, M.C. (1997), ' Choosing qualitative research: a primer for technology education researchers', *Journal of Technology Education*, vol, 9 no. 1, pp. 47-63.

Hopkins, D., Ainscow, M. and West, M. (1994), '*School Improvement in an Era of Change*, London, Cassell.

Hopkins, D., Ainscow, M. and West, M. (1996), 'Unravelling the complexities of school improvement: a case study of the Improving the Quality of Education for All (IQEA) project', in A. Harris, N. Bennett and M. Preedy (eds.), *Organizational Effectiveness and Improvement.* Buckingham, Open University Press.

Hopkins, D. West, M., Harris, A., Ainscow, M. and Beresford, J. (1997), *Creating the Conditions for Classroom Improvement*, London, David Fulton.

Hord, S. M. (1997), 'Professional learning communities: communities of continuous inquiry and improvement' (ONELINE – http//www.sedl.orgpubs/change34/-12/21/2006).

Huberman, M. (1990) 'The Social Context of Instruction in Schools' paper presented at the Annual Meeting of the American Educational Research

Association (AERA), Boston.

Huberman, M. (1993), 'The model of the independent artisan in teachers' professional relations', in J.W. Little and M.W. McLaughin, (eds.), *Teachers' Work: Individuals, Colleagues and Contexts*, New York, Teachers College Press.

Huberman, M. (1993), *The Lives of Teachers*, London, Cassell.

Huberman, M. (1995), 'Networks that alter teaching: conceptualisations, exchanges and experiments', *Teachers and Teaching*, vol. 1, no.2, pp. 193-211.

(ILEA) Inner London Education Authority (1984), *Improving Secondary Schools*, London, ILEA.

Jackson, J.A., (1972), *Role*, Cambridge, The University Press.

Jackson, S.E., & Schuler, R.S. (1985), 'A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings', *Organizational Behavior and Human Decision Processes*, vol. 36, pp. 16-78.

Janesick, V. J. (1994), 'The dance of qualitative research designs. Metaphor, methodolatry and meaning', in N. K. Denzin, & Y. S. Lincoln (eds.), *Handbook of Qualitative Research*', Thousand Oaks, CA: Sage Publications.

Jalongo, M.R. (1991), *Creating Learning Communities: The Role of the Teacher in the Twenty-first Century*. Bloomington, IN: National Educational Service.

Johnson, S.M. (1990), *Teachers at Work*, New York, Basic Books.

Johnson, D. (1994), *Research Methods in Educational Management*, London, Longman.

Johnston, D.K. Duvernoy, R., McGill, P. and Will, J.F. (1996), 'Educating teachers together: teachers as learners, talkers, and collaborators', *Theory Into Practice*, vol. 35, no.3, pp.173-178.

Joyce, B., and Showers, B. (1980), 'Improving in-service training: the messages of research', *Educational Leadership*, vol. 37, no.5, pp.379-385.

Joyce, B., and Showers, B. (1988), *Student Achievement through Staff Development*, New York, Longman.

Kahn, R.L., Wolfe, D.M., Quinn, R.P. and Snoek, J.D. (1964), *Organisational Stress: Studies in Role Conflict and Ambiguity*, New York, John Wiley & Sons

Kahn, R.L., Wolfe, D.M., Quinn, R.P. and Snoek, J.D. (1966), 'Adjustment to role conflict and ambiguity in organisations' in B.J. Biddle & E.J. Thomas, (eds.) *Role Theory-Concepts and Research*, New York, Wiley

Katz, D. and Kahn, R.L. (1966), *The Social Psychology of Organisations*, (1st edn.), New York, John Wiley & Sons

Katz, D. and Kahn, R.L. (1978), *The Social Psychology of Organisations*, (2nd edn.), New York, John Wiley & Sons.

Keltner, B. R. (1998), *Funding Comprehensive School Reform*, RAND.

King, B. and Newmann, F. (1999), 'School Capacity as a Goal for Professional Development: Mapping the Terrain in Low Income Schools' paper presented at the Annual Meeting of AERA, Montreal, 1999.

King, B. and Newmann, F. (2000), 'Will teacher learning advance school goals?', *Phi Delta Kappan*, vol. 81, no. 8, pp. 576-580.

Kitwood, T. (1977), 'Values in adolescent life: towards a critical description', unpublished Ph.D. thesis, University of Bradford, in Cohen, L. and Manion, L. (1994), *Research Methods in Education*, (4th edn.), London, Routledge.

KnowledgeBank, (2006), 'Whole school improvement' (ONELINE – www.sofweb.vic.edu.au/Knowledgebank/improvement/default.asp-12/19/2006).

Kottkamp, R. and Mansfield, J. (1985), 'Role conflict, role ambiguity, powerlessness and burnout among high school supervisors', *Journal of Research and Development in Education*, vol. 18, no.4, pp. 29-38.

Lambert, K. (1975), 'Research report: the role of head of department in schools', *Educational Administration*, vol. 3, no.2, pp. 27-39.

Landy, R. J. (1991), 'The dramatic basis of role theory', *Arts in Psychotherapy*, vol. 18, no. 1, pp 29-41.

Lee, H. L. (2004), 'Our Future of Opportunity and Promise' speech given at the

National Day Rally at the University Cultural Centre, NUS, on 22 August, 2004 (ONELINE - http://stars.nhb.gov.sg/stars/public-08/09/2006)

Lee, H. L. (2005), transcript of speech given at the National Day Rally at the University Cultural Centre, NUS, on 21 August, 2005 (ONELINE - http://stars.nhb.gov.sg/stars/public-08/09/2006)

Lehmann, I.J. and Mehrens, W.A. (1971), *Educational Research: Readings in Focus*, New York, Holt, Rinehart and Winston, Inc.

Leithwood, K. (1992), *Teacher Development and Educational Change*, London, Falmer.

Leithwood, K., Jantzi, D. and Steinbach, R. (1999), *Changing Leadership for Changing Times*, Buckingham, Open University Press.

Levine, H. M. and Lezotte, L.W. (1995), 'Effective schools research', in *Handbook of Research on Multicultural Education*, New York: MacMillan.

Lincoln, Y.S. and Guba, E. G. (1985), *Naturalistic Inquiry*, Beverly Hills, CA: Sage.

Linton, R. (1936), *The Study of Man*, New York, Appleton-Century.

Little, J. (1995), 'Subject affiliations in high schools that restructure', in L. Siskin, and J. Little, (eds.), *The Subject Department: Continuities and Critiques*, New York, Teachers College Press.

Ludbrook, J., & Dudley, H. (1998), 'Why permutation tests are superior to t and Ftests in medical research', *The American Statistician*, 52, 127-132 in M.D. Gall, J. P. Gall, & W.R. Borg, (2003), *Educational Research*, Boston, Allyn and Bacon.

MacMullen, M.M. (1996), 'Taking stock of a school reform effort: a research collection and analysis', *Occasional Paper Series #2*. Providence, RI: Annenberg Institute for School Reform, Brown University.

Manickavasagar, M. (1985), 'The instructional leadership of secondary school principals and staff performance in the school programme', unpublished M. Ed. thesis, National University of Singapore.

Marland, M. (1971), *Head of Department*, London, Heinemann.

Marland, M. (1975), 'Comment on LAMBERT (1975) "Research report: the role of head of department in schools" ', *Educational Administration*, vol. 3, no.2.

Marwick, A. (1970), *The Nature of History*, London, Macmillan.

Mathias, H.(1991), 'The role of the university head of department', *Journal of Further and Higher Education*, vol. 15, no. 3 Autumn 1991.

McChesney, J. (1998), 'Whole-school reform', *Eric Digest 124* (ONELINE – http://eric.uoregon.edu/pdf/digests/digest.124.pdf-9/9/2006).

McFee, G. (1992), 'Triangulation in research: two confusions', *Educational Research*, vol. 34, no.3, pp. 215-219.

McPake, J. (1998), 'Just talking is helpful' – the importance of networking for headteachers in small primary schools', *Research in Education*, no. 63, pp.1-3 (ONELINE – http://www.scre.ac.uk/rie/n163/n163mcpake.html-5/8/2005).

Media in Education Trust (MiET), (2004), 'Cluster research project' (ONELINE - http//www.miet.co.za/Projects/cluster.htm- 4/27/2005).

Merriam, S. B. (2005), 'What can you tell from an N of 1? Issues of validity and reliability in qualitative research' (ONELINE- http://www.coe.uga.edu-4/12/2005).

Middlewood, D. (1998), 'Strategic management in education: an overview', in D. Middlewood, & J. Lumby, (eds), *Strategic Management in Schools and Colleges*, London, Paul Chapman.

Middlewood, D. (1997), 'Managing appraisal', in T. Bush and T. Middlewood, (eds.), *Managing People in Education*, London, Paul Chapman.

Miles, M.B. and Huberman, A.M. (1994), *Qualitative Data Analysis: an Expanded Sourcebook*, London, Sage Publications.

Ministry of Education (1985), *Principals' Handbook*, Singapore, Author.

Ministry of Education (1979), *Report on the Ministry of Education*, Singapore, Author.

Ministry of Education (1987), *Managing a Secondary School's Mathematics Programme*, Singapore, Author.

Ministry of Education (1987), *Towards Excellence in Schools*, Singapore, Author.

Ministry of Education (1988), *Head of Humanities Department Handbook*, Singapore, Author.

Ministry of Education (1988), *The English Department Handbook (for Secondary Schools)*, Singapore, Author.

Ministry of Education (1989), 'The HOD scheme in secondary schools', *Report of Seminar for Secondary School Principals*, Singapore, Author.

Ministry of Education (1991), *Improving Primary School Education*, Singapore, Author.

Ministry of Education (1994), *Managing a Secondary School's Mathematics Programme*, (2nd edn.), Singapore, Author.

Ministry of Education (1996), *Principals' Handbook*, Ministry of Education, Singapore.

Ministry of Education (1996), *Profile of a Head of Department*, Schools Division, Singapore.

Ministry of Education (1999), *Principals' Handbook* (ONELINE – http://sgmoea003.moe.edu.sg/proj.../482566a3001f9819002566ad002ed3bf? OpenDocumen-10/13/99).

Ministry of Education (2000), *Principals' Handbook*, Ministry of Education, Singapore.

Ministry of Education Singapore (2000) 'SEM - an overview'(ONELINE – http://intranet.moe.edu.sg/schdiv/SEM/part_1_content.htm-01/12/03).

Ministry of Education Singapore (2002) 'EPMS online: overview' (ONELINE – http://intranet.moe.edu.sg/epms/preface-28/01/2004).

Ministry of Education Singapore (2002), 'EPMS online: overview' (ONELINE – . http://intranet.moe.edu.sg/epms/.htm-28/01/2004).

Ministry of Education Singapore (2003) 'Secondary education' (ONELINE – http://www1. moe.edu.sg/secondary.htm-05/12/03).

Ministry of Education Singapore (2003), 'Primary education' (ONELINE – http://www1. moe.edu.sg/primary.htm-05/12/03).

Ministry of Education, Singapore (2004), 'Schools Division' (ONELINE –

http://www.moe.gov.sg/schdiv/school_new.htm-09/09/2006).

Mortimore, P., Gopinathan, S., Leo, E., Myers, K., Sharpe, L., Stoll, L., & Mortimore, J. (2000), *The Culture of Change: Case Studies of Improving Schools in Singapore and London*, Institute of Education, University of London.

Mok, S. M. (1985), 'Role conflict and role ambiguity in relation to principals' perceptions of the importance of tasks', unpublished M. Ed. Thesis, National University of Singapore.

Moreno, J. L. (1960), *The Sociometry Reader*, Glencoe, Ill: The Free Press.

Moreno, J. L. (1989), 'Psychodrama, role theory, and the concept of the social atom', *Journal of Group Psychtherapy'*, vol. 42, no.3, pp. 178-186.

Morgan, C. and Turner, C. (1976), 'Role, the educational manager and the individual in the organisation', *E321 Management in Education,* Milton Keynes, The Open University.

Morris, T. & Dennison, W.F. (1982), 'The role of the comprehensive school head of department analysed', *Research in Education*, Nov, pp. 37-47.

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002), 'Verification strategies for establishing reliability and validity in qualitative research', *International Journal of Qualitative Methods*, vol. 2, Article 2 (ONELINE-http://www.ualberta.ca/-ijqm/-4/12/2005).

Mortimore, P. and Mortimore, J. with Thomas, H. (1994), *Managing Associate Staff in Schools*, London, Paul Chapman.

Murphy, J. (1992), *The Landscape of Leadership Preparation*, Thousand Oaks, CA, Corwin Press.

Myers, K. (1996), *TES School Management Update*, Nov. 29th 1996, pp.6.

National College for School Leadership, (2001), 'County headteacher helping to pioneer prestigious new school leadership college', *Press Releases* (ONELINE – http//newportal.ncsl.org.uk/the_college/press_releases/pn6_June01_Jackson_Beds.cfm...-5/15/2005).

National College for School Leadership, (2005), 'Leading from the middle' (ONELINE –

http//www.ncsl.org.uk/leadership_development/emergent_leadership/ldev-emergent-le-5/15/2005).

National College for School Leadership, (2005), 'NCSL leadership development' (ONELINE - http//www.ncsl.org.uk/leadership_development/dev-index.cfm-5/15/2005).

National College for School Leadership, (2005), 'Leadership development framework' (ONELINE –

http//www.ncsl.org.uk/the_college/college_publications/ldf.cfm-5/15/2005).

Newmann, F.M. & Wehlage, G.G. (1995), *Successful School Restructuring.* Madison, WI: Center on Organization and Restructuring of Schools, School of Education, University of Wisconsin-Madison.

Ng P. T. (2003), 'The Singapore school and the School Excellence Model', Educational *Research for Policy and Practice,* vol. 2, pp. 27-39, Netherlands, Kluwer Academic.

Nunnally, J. C. (1967), *Psychometric Theory,* New York, McGraw Hill.

OFSTED. (1997), *Subject Management in Secondary Schools: Aspects of Good Practice,* London, Ofsted.

OFSTED. (2003), *The Annual Report of Her Majesty's Chief Inspector of Schools,* London, The Stationery Office.

OFSTED. (2003), 'Excellence clusters: the first ten inspections' (ONELINE - http://www.ofsted.gov.uk/publications/index.cfm?fuseaction=pubs.displayfil e&id=3413&type=pdf-4/28/2005).

Ogden, E. H., & Germinario, V. (1994), *The Nation's Best Schools: Blueprints for Excellence: Volume I: Elementary and Middle Schools,* Lancaster, PA: Technomic Publishing Co.

Patton, M.Q. (2001), *Qualitative Evaluation and Research Methods,* (3rd ed.) Thousand Oaks, CA: Sage Publications.

Patton, M. Q. (2002), *Qualitative Evaluation and Research Methods* (3rd ed.) Thousand Oaks, CA: Sage Publications.

Peeke, G. (1980), 'Role strain in the further education college', *Vocational Aspects of Education,* vol. XXXII, no. 83, pp. 77-80.

Peeke, G. (1983), 'Role strain in the further education college', in O. Boyd-Barrett, T. Bush, J.Goodey, I. McNay, and M. Preedy, (eds.), *Approaches to Post-School Management,* London, Paul Chapman.

Peterson, P.L., McCarthey, S.J. & Elmore, R.F. (1996), 'Learning from school restructuring', *American Educational Research Journal,* vol. 33, no.1, pp.119-153.

Pring, R. (2000), *Philosophy of Educational Research,* London, Continuum.

Rallis, S.F. (1995), 'Creating learner centered schools: dreams and practices', *Theory into Practice,* vol. 34, no. 4, pp.224-229.

Raywid, M.A. (1993), 'Finding time for collaboration', *Education Leadership,* vol. 51, no. 1, pp. 30-34.

Ribbins, P. (1988), 'The role of the middle manager in the secondary school', in R. Glatter, M. Preedy, C. Riches, and M. Masterson, (eds.), *Understanding School Management,* Milton Keynes, Open University Press.

Ribbins, P. (1995), 'Leaders and Leadership in Schools and Colleges: A Programme Prelude' keynote paper presented at the British Educational Management and Administration Society (BEMAS) Annual Conference, Oxford, University of Oxford, 1995

Robson, C. (1994), 'Analysing documents and records', in N. Bennett, R. Glatter, and R. Levacic, (eds.), *Improving Educational Management Through Research and Consultancy,* London, Paul Chapman.

Rosenholtz, S. (1989), *Teacher's Workplace: The Social Organization of Schools,* New York: Longman.

Rossi, R, and Stringfield, S. (1995), *An Evaluation of the State of Reform for Schools Serving Large Numbers of Students Placed at Risk,* Washington,

D.C.: U.S. Department of Education Office of Educational Research and Improvement.

Rossman, G.B., and Wilson, B.L. (1991), 'Numbers and words revisited: being "shamelessly eclectic" ', *Evaluation Review,* vol. 9, no.5, pp.627-643.

Sadinsky R. and Tuke, G. (2003), 'Powerful schools' (ONELINE - http//www.newhorizons.org/trans/sadinsky.htm-19/5/2005).

Sammons, P., Thomas, S. and Mortimore, P. (1996), 'Promoting school and departmental effectiveness', *Management in Education,* vol. 10, pp. 22-24.

Sammons, P., Thomas, S. and Mortimore, P. (1997), *Forging Links: Effective Schools and Effective Departments,* London, Paul Chapman.

Sampson, W. R. (2006), 'Measures of communication' (ONELINE – http//www.uwec.edu/Sampson/Measures/Leadership-LPC.htm-8/5/2006).

Saphier, J., & King, M. (1985), 'Good seeds grow in strong cultures', *Educational Leadership,* vol. 42, pp. 67-74.

Sapsford, R. and Evans, J. (1984), 'Evaluating a research report', in J. Bell, T. Bush, A.. Fox, J. Goodey, and S. Goulding, (eds.), *Conducting Small-Scale Investigations in Educational Management,* London, Harper and Row.

Scheerens, J. (1992), *Effective Schooling Research: Theory and Practice,* London, Cassell.

Schools Council (1987), *4th Schools' Council Paper,* Ministry of Education, Singapore.

Seah-Tay, H.Y. (1996), 'Role conflict among heads of department in Singapore secondary schools', unpublished M. Ed. Thesis, Nanyang Technological University, Singapore.

Seidman, I. (1998), *Interviewing as Qualitative Research – A Guide for Researchers in Education and the Social Science,* New York: Teachers College Press.

Senge, P. (1990), *The Fifth Discipline: The Art and Practice of the Learning Organisation,* New York: Doubleday.

Shanmugaratnam, T. (2004), 'Navigating the Future' speech given at the Launch of

the Monograph on Strategies for Active and Independent Learning at the Edutorium, MOE Building, Singapore on 25 March 2004 (ONELINE – http://www.moe.gov.sg/speeches/2004/sp20040325.htm-11/08/2006).

Shanmugaratnam, T. (2004), 'Teaching for Tomorrow's Challenges' speech given at the NIE Teachers Investiture Ceremony at NTU Singapore on 6 Jan 2004 (ONELINE –
http://www.moe.gov.sg/speeches/2004/sp20040106.htm-11/09/2006).

Shanmugaratnam, T. (2005), 'Achieving Quality: Bottom Up Initiative, Top Down Support' speech given at the MOE Work Plan Seminar at the Ngee Ann Polytechnic Convention Centre, Singapore on 22 September, 2005 (ONELINE –
http://www.moe.gov.sg/speeches/2005/sp20050922.htm-11/08/2006).

Sieber, S.D. (1973), 'The integration of fieldwork and survey methods' in Miles, M.B. and Huberman, A.M. (1994), *Qualitative Data Analysis: an Expanded Sourcebook*, London, Sage.

Simkins, T., Ellison, L., and Garrett, V. (1992), *Implementing Educational Reform: Early Lessons*, London, BEMAS/Longman.

Singapore Educator (1989), 'The head of department scheme in secondary schools', *Singapore Educator*, Issue no. 8, pp.12-18.

Siskin, L. (1993) 'Hermaphroditic Roles: Teacher Leadership in Secondary Schools' paper presented at the International Study Association on Teacher Thinking, Gothenburgh, Sweden.

Siskin, L.S. (1994), *Realms of Knowledge: Academic Departments in Secondary Schools*, London, Falmer Press.

Siskin, L.S. & Little, J. (1995), *The Subject Department: Continuities and Critiques*, New York, Teachers' College Press.

Smith, R. E. (1996b), 'The role of the head of department in new British universities' in Smith, R.E. (2002), 'The role of the university head of department', *Educational Management and Administration*, vol. 30, no.3, pp.293-312.

Smith, R.E. (2002), 'The role of the university head of department', *Educational Management and Administration*, vol. 30, no.3, pp.293-312.

State of Victoria (Department of Education & Training), (2005), 'Middle years research overview' (ONELINE – http//www.sofweb.vic.edu.au/mys/innovationandexcellence/Einthemiddle years.htm- 4/27/2005.

Stoll, L. and Fink, D.(1996), *Changing our Schools: Linking School Effectiveness and School Improvement*, Buckingham, Open University Press.

Stoll, L. and Fink, D. (1997), *Changing our Schools*, Buckingham, Open University Press.

Strauss, A., and Corbin, J. (1990), *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*, Newbury Park, CA: Sage Publications.

Stryker, S. and Stratham, A., (1985), 'Symbolic interaction and role theory' in C. Lindzey, and E. Aronson, (eds.), *Handbook of Social Psychology*, (3rd edn.) New York, Random House,.

Tan J. (1997), 'Independent schools in Singapore: implications for social and educational inequalities' in J. Tan, S. Gopinathan, S. and W.K. Ho, (eds.), *Singapore In Singapore: A Book of Readings*, Singapore, Prentice Hall.

Tan S. I. (1989), 'The head of department scheme: experience of three principals', *Singapore Educator*, Issue No. 8, pp. 14-15.

Taylor, S. J., & Bogdan, R. (1984), *Introduction to Qualitative Research Methods*, New York, Wiley.

Taylor, S. J., & Bogdan, R. (1998), *Introduction to Qualitative Research Methods*, (3rd edn.), New York, Wiley.

Teachernet, (2003) 'Excellence clusters' (ONELINE – http//www.teachernet.gov.uk/management/atoz/e/excellenceclusters/- 4/27/2005).

Teacher Training Agency (1996), *Consultation Paper on Standards and a National Professional Qualification for Subject Leaders*, London, TTA.

Teacher Training Agency (1998), *National Standards for Subject Leaders*, London,

TTA.

Teo, C. H. (1997), Speech at the Official Opening of the New Campus of Tanjong Katong Girls' School, Ministry of Information and the Arts Singapore (ONELINE –

http://app.sprinter.gov.sg/data/pr/1997071008.htm-07/01/2004).

Teo, C. H. (2000), Address at the Appointment Ceremony of Principals at Orchard Hotel Ballroom, Ministry of Education, Singapore (ONELINE - http://www.moe.gov.sg/speeches/2000/sp3012000.htm-03/06/2005).

Teo, C. H. (2001), Speech at the Senior Education Officer Promotion Ceremony 2001 at Westin Ballroom, Ministry of Education, Singapore (ONELINE - http://www.moe.gov.sg/speeches/2001/sp14042001.htm-04/08/2004).

Teo, C. H. (2002), Speech at the Appointment Ceremony of Principals at Island Ballroom, Shangri-La Hotel Ministry of Education, Singapore (ONELINE - http://www.moe.gov.sg/speeches/2002/sp30122002.htm-03/06/2005).

Teo, E.K. (1999), 'Collegiality and teacher development', unpublished Ph.D Thesis, Nanyang Technological University, Singapore.

Thomas, D. R. (2000), 'The contribution of qualitative research to evidence-based medicine', *Health Research C Newsletter*, Oct 2000, no .34, pp. 18-19.

Turner, C. K. (1996), 'The roles and tasks of a subject head of department in secondary schools in England and Wales: a neglected area of research?', *School Organisation*, vol.16, no.2, pp. 203-218.

Turner, C. K. (1998), 'A preliminary discussion of the methods used by heads of subject departments to promote more effective teaching and learning in secondary schools in Wales', *The Welsh Journal of Education*, vol. 7, no.1, pp. 80-94.

Turner, C. (2000) 'A Critical Review of Research on Subject Leaders in Secondary Schools in the Period 1995-2000' paper presented at the British Educational Management and Administration Society (BEMAS) Annual Conference. Robinson College, Cambridge, March 2000.

Turner, C. (2000) 'Learning About Leading a Subject Department in Secondary

Schools: Some Empirical Evidence' paper presented at the British Educational Management and Administration Society (BEMAS) Annual Conference, Robinson College, Cambridge, March 2000.

Turner, C. (2003), 'A critical review of research on subject leaders in secondary schools', *School Leadership & Management*, vol. 23, no.2, pp. 209-227.

Turner, C. and Bolam, R, (1998), 'Analysing the role of the subject head of department in secondary schools in England and Wales: towards a theoretical framework', *School Leadership & Management*, vol. 18, no.3, pp.373-388.

Turner, R. (1969), 'Role-taking: process versus conformity', in A. Lindesmith, and A. Strauss, (eds.), *Readings in Social Psychology*, New York, Holt, Rinehart & Winston.

12Manage (2006), 'Contingency Theory' (ONELINE –
http//www.12Manage.com/methods_contingency_theory.html - 11/6/2006).

Uline, C., Miller, D. and Tschannen-Moran, M. (1998), 'School effectiveness: the underlying dimensions', *Educational Administration Quarterly*, vol. 34, no. 4, pp. 462-483.

Vulliamy, G. (1990), 'The potential of qualitative educational research strategies in developing countries', in G. Vulliamy, K. Lewin, & D. Stephens (eds.), *Doing Educational Research in Developing Countries: Qualitiative Strategies* (1st ed.), Basingstoke: Burgess Science Press.

Wallace, M. and Hall, V. (1994), *Inside the SMT: Teamwork in Secondary School Management*, London, Paul Chapman.

Wang, M. C., Haertel, G. D., & Walberg, H. J. (1993), 'Toward a knowledge base for school learning', *Review of Educational Research*, vol. 63, no. 3, pp. 249-294.
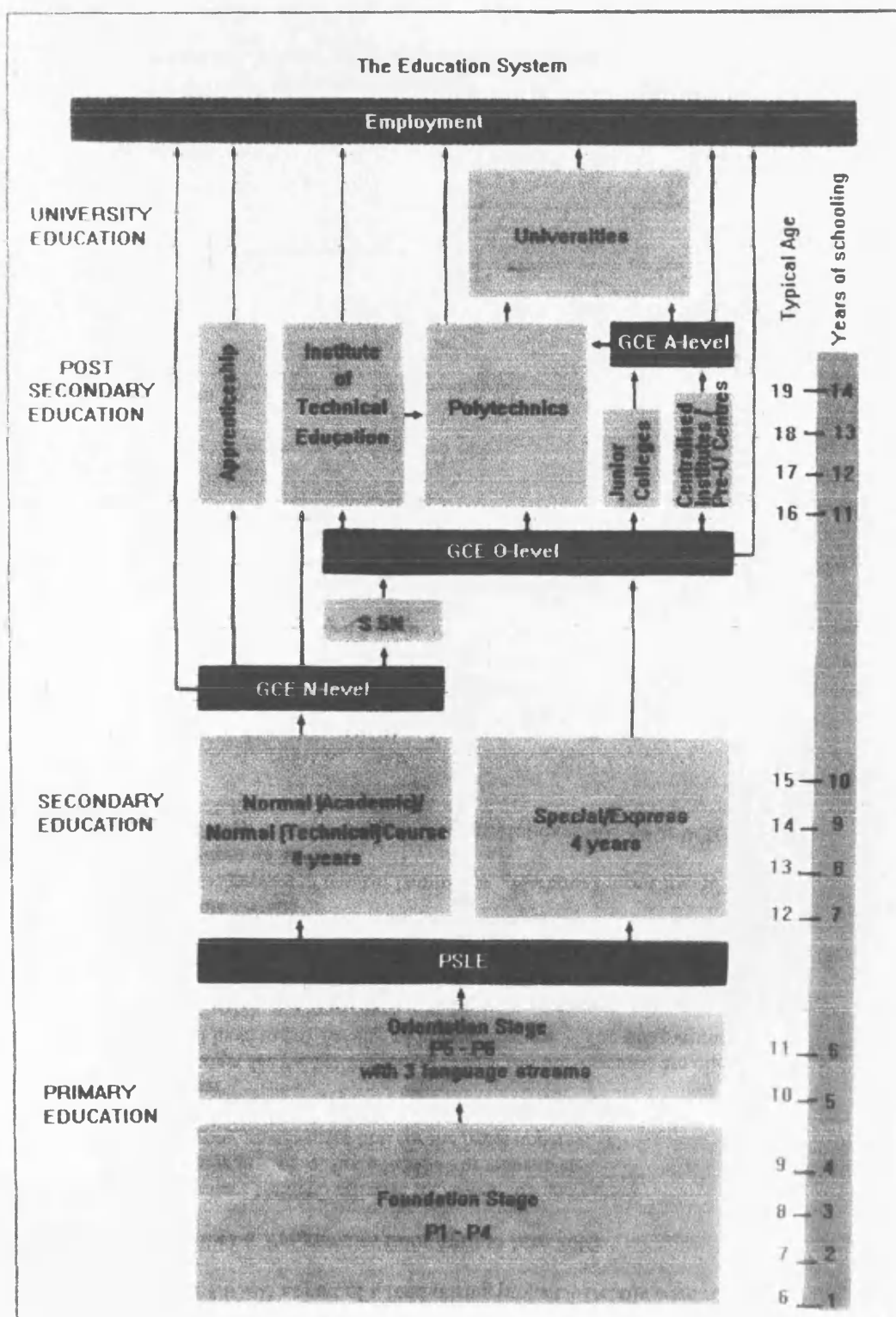
Wee, H.T., & Chong, K.C. (1990), '25 years of school management', in J. Yip & W.K. Sim, (eds.), *Evolution of Educational Excellence: 25 Years of Education in the Republic of Singapore*, Singapore, Prentice Hall.

Weiss, R.S. (1994), *Learning from Strangers - the Art and Method of Qualitative Interview Studies*, New York: The Free Press.

Welsh Office Green Paper (1999) *The BEST for Teaching and Learning*, Cardiff: Stationary Office Ltd.

Wildman, T.M., Niles, J.A., Magliaro, S.G. and McLaughlin, M. (1989), 'Teaching and learning to teach: the two roles of beginning teachers', *The Elementary School Journal*, vol. 89, no.4, pp. 473-493.

Wilson, M. (2001), 'Comprehensive school governance and special educational needs provision: policy, practice and future priorities', *Educational Management and Administration*, vol. 29, no.1, pp. 49-62.

Wilson, S. (1979), 'Explorations of the usefulness of case study evaluations', *Evaluation Quarterly*, vol. 3, pp. 446-459.

Wise, C. (2000) 'The Monitoring Role of the Academic Middle Manager in Secondary Schools' paper presented at the British Educational Management and Administration Society (BEMAS) Annual Conference, Robinson College, Cambridge, March 2000.

Wise, C. (2001), 'The monitoring role of the academic middle manager in secondary schools', *Educational Management and Administration*, vol. 29, no.3, pp.333-341.

Wise, C. and Bush, T. (1999), 'From teacher to manager: the role of the academic middle manager in secondary schools', *Educational Research*, vol. 41, no.2, pp.183-195.

Wise, C. and Busher, (2001), 'The subject leader', in D. Middlewood and N. Burton, (eds.), *Managing the Curriculum*, London, Paul Chapman.

Witziers, B., Sleegers, P. and Imants, J. (1999), 'Departments as teams: functioning, variations and alternatives', *School Leadership and Management*, vol.19. no.3, pp. 293-304.

Wong, R. H.K. (1974), *Educational Innovation in Singapore,* the UNESCO Press, Paris.

Wragg, E. (1984), 'Conducting and analysing interviews', in J. Bell, T. Bush, A.

Fox, J. Goodey, and S. Goulding, (eds.), *Conducting Small-Scale Investigations in Educational Management*, London, Harper and Row.

Yin, R. (1994) 'Designing single and multiple case studies' in N. Bennett, R. Glatter, and R. Levacic, (eds.), *Improving Educational Management through Research and Consultancy*, London, Paul Chapman.

Yip, J. (1997), 'Reflections and renewal in education', in J. Tan, S. Gopinathan, S. and W.K. Ho, (eds.) (1997), *Education in Singapore: A Book of Readings*, Singapore, Prentice Hall.

Youngman, M. (1994) 'Designing and using questionnaires', in N. Bennett, R. Glatter, and R. Levacic, (eds.), *Improving Educational Management Through Research and Consultancy*, London, Paul Chapman .

APPENDIX 1

The Education System

| | | | | | | | Typical Age | Years of schooling |

UNIVERSITY EDUCATION

POST SECONDARY EDUCATION

SECONDARY EDUCATION

PRIMARY EDUCATION

Employment

Universities

GCE A-level

Apprenticeship

Institute of Technical Education

Polytechnics

Junior Colleges

Centralised Institutes / Pre-U Centres

GCE O-level

S 5N

GCE N-level

Normal (Academic)/ Normal (Technical) Course 5 years

Special/Express 4 years

PSLE

Orientation Stage P5 - P6 with 3 language streams

Foundation Stage P1 - P4

Typical Age	Years of schooling
19	14
18	13
17	12
16	11
15	10
14	9
13	8
12	7
11	6
10	5
9	4
8	3
7	2
6	1

Primary Education   417

APPENDIX 2

Annex B3

SUGGESTED SCHOOL ORGANISATIONAL STRUCTURE
(SECONDARY SCHOOLS)

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---------------
|  PRINCIPAL  |
|             |
 -------------
        |                           ------------------------
        |                          |      CIVICS          |
        ---->-----------------     ·     AND              |
        |                         |  MORAL EDUCATION      |
        |                          ------------------------
        |
 --------------
|    VICE      |
|  PRINCIPAL   |
 -------------
        |                    --------------------------------
        V                   |           HOD                 |
        |         --------   (ENGLISH LANGUAGE             |
        |        |     |        AND LITERATURE)            |
        :        |      --------------------------------
        :        |
        |        |      --------------------------------
        |         --------          HOD                 |
        |        |     |      (OTHER LANGUAGES)          |
        |        |      --------------------------------
        |        |
        |        |      --------------------------------
        |         --------          HOD                 |
        |        |     |       (MATHEMATICS)            |
        |        |      --------------------------------
        |        |
        |        |      --------------------------------
        |         --------          HOD                 |
        |        |     |         (SCIENCE)              |
    ---->------    --------------------------------
             |
             |     --------------------------------
        --------          HOD                 |
        |     |       (HUMANITIES)            |
        |      --------------------------------
        |
        |      --------------------------------
        --------          HOD                 |
        |     |      (MEDIA RESOURCES)        |
        |      --------------------------------
        |
        |      --------------------------------
        --------          HOD                 |
        |     |     (ECA AND AESTHETICS)      |
        |      --------------------------------
        |
        |      --------------------------------
        --------          HOD                 |
        |    (CRAFTS AND TECHNOLOGY)          |
         --------------------------------
```
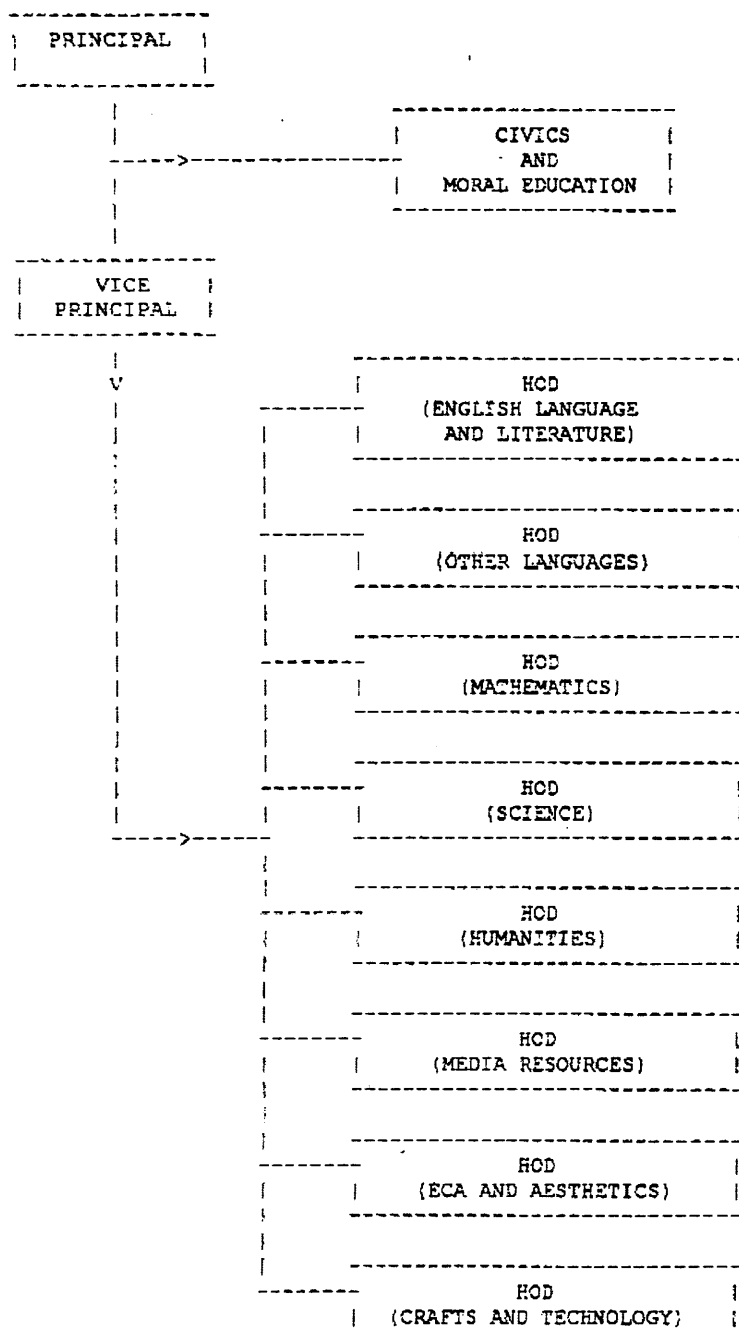
HOD = Head of Department

APPENDIX 3

SCHOOL EXCELLENCE MODEL (SEM) FRAMEWORK

	Enablers			Results	
Leadership	**Staff Management** / **Strategic Planning** / **Resources**	**Student Focused Processes**	**Staff Results** / **Administrative & Operational Results** / **Partnership & Society Results**	**Key Performance Results**
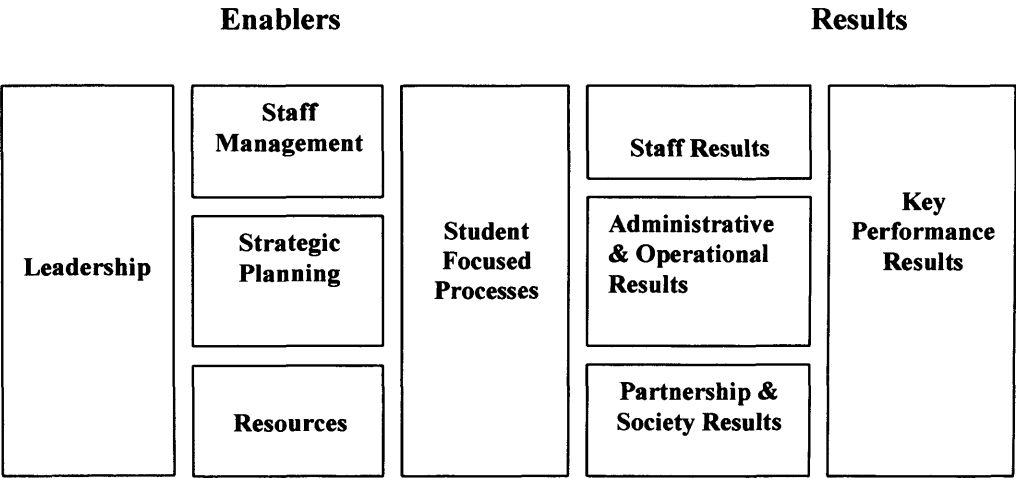
(Ministry of Education, 2000, p. 2)

APPENDIX 4

EDUN N32-07-005 Vol. 61   Request No.: RQ/0314

23 November 2000

Mrs Grace Lim Siew Meng
c/o Principal of Bowen Secondary School
2 Lorong Napiri
Singapore 547529

Dear Mrs Lim

STUDY ON "ROLE OF HODS IN CLUSTER SECONDARY SCHOOLS"

I refer to your application letter dated 01 November 2000 requesting for approval to collect data from schools.
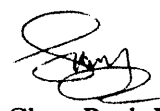
2   I am pleased to inform you that the Ministry has no objection to your request to conduct research in 16 secondary schools. Please use the attached letter, including Annex A and the approved questionnaire to seek approval from the principals and during actual survey.

3   Please observe the following conditions of approval for conducting survey in schools:

   a) adhere to the approved research proposal;
   b) not to publish your findings without clearance from the Ministry of Education;
   c) make sure that the schools' participation in the research have been recorded in
      Annex A.

4   Please acknowledge receipt of this letter by contacting Miss Jacklyn at Tel: 8796069 or myself at Tel: 8796073. Alternatively, we can also be reached at any of the e-mail addresses at the top right hand corner of this letter.

Yours sincerely

Ivy Chua Peck Yong (Ms)
Head, Data Administration 3
Data Administration Centre
for PERMANENT SECRETARY (EDUCATION)

N3207005/Rqletter0314

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MINISTRY OF EDUCATION

1 NORTH BUONA VISTA DRIVE
SINGAPORE 138675
REPUBLIC OF SINGAPORE

The Singapore Education Service

MOULDING THE FUTURE OF
OUR NATION

EDUN N32-07-005 Vol. 61   Request No.: **RQ/0314**

23 November 2000

To: Principals of Secondary Schools

STUDY ON "ROLE OF HODS IN CLUSTER SECONDARY SCHOOLS"

The Ministry has no objection to the research proposed by Mrs Grace Lim Siew Meng, a Doctorate of Education student at University of Leicester. **You may decide** whether or not to allow her to conduct the research in your schools. If you do, please:

i)   ensure that the approved research proposal including questionnaire (see attached) is adhered to;

ii) inform your teachers/pupils that participation in the study is voluntary and they need not provide any sensitive information (e.g. name and NRIC No.);

iii) record your schools' participation by completing the form as shown in Annex A.

2   If you require any clarifications, please contact Miss Jacklyn at Tel: 8796069 or myself at Tel: 8796073. Thank you for your co-operation.

Ivy Chua Peck Yong (Ms)
Head, Data Administration 3
Data Administration Centre

N3207005/Rq0314

Public Service for the 21st Century

APPENDIX 5

ROLE OF HODS IN CLUSTER SECONDARY SCHOOLS
QUESTIONNAIRE

1 OCTOBER 2000

Dear colleague

I would appreciate it very much if you could spare a few minutes to answer this questionnaire. It is a survey on the HOD's role in the cluster secondary school.

The information provided by you will be used for my Doctoral study with the University of Leicester.

All information given by you will be kept completely confidential.

Please return the completed questionnaire in the envelope provided.

Thank you very much for your time and help.

Yours sincerely
Grace Lim (Mrs)
Bowen Secondary

HOD QUESTIONNAIRE   APPENDIX 6

The purpose of this questionnaire is to find out as much as possible about the role of a HOD in the school cluster.

- All information given by you will be kept confidential.

- Please do not miss out any statement.

- Thank you for your time and cooperation.

- The grading of the questions are given below:

    5=To a very great extent

    4=To a considerable extent

    3=to some extent

    2=to a slight extent

    1=to no extent

Please circle the number which you think is the most appropriate for your answer.

Questions

1. I like the type of work I do	1	2	3	4	5
2. My job makes good use of my abilities	1	2	3	4	5
3. I feel a lot of pressure in my job	1	2	3	4	5
4. I know the standards of performance I have to meet for my job	1	2	3	4	5
5. I am given enough facilities/equipment to do my job efficiently	1	2	3	4	5
6. When faced with a difficulty, I can usually count on getting assistance from my colleagues	1	2	3	4	5
7. I feel that my Principal is approachable if I need to speak to her	1	2	3	4	5
8. My Principal understands the difficulties people like me face in our job	1	2	3	4	5
9. My Principal gives enough support and guidance for us to meet our goals at work	1	2	3	4	5
10. My Principal is concerned with the HODs and not only about getting the job done	1	2	3	4	5
11. School management understands the problems of people at my level	1	2	3	4	5

12. School management is accessible to people at my level   1   2   3   4   5

13. The Superintendent has positively affected the decision-making processes
in my school.   1   2   3   4   5

14. Cluster activities have not over-burdened me and my colleagues   1   2   3   4   5

15. My relationship with the staff is not negatively affected by the
Superintendent   1   2   3   4   5

16. Through cluster activities I am better able to appraise the staff in my
school   1   2   3   4   5

17. The cluster has facilitated my identification of staff with high potential   1   2   3   4   5

18. I have benefited from the training organized by the cluster   1   2   3   4   5

19. I find that I have not enough time to complete all my tasks   1   2   3   4   5

20. The HOD's role is clearly defined   1   2   3   4   5

21. The duties and responsibilities of the HOD are clearly spelt out in the job
description   1   2   3   4   5

22. I find my job very stressful   1   2   3   4   5

23. Most HODs in my school are likely to remain in this profession for a very
long time   1   2   3   4   5

24. I see myself staying in the teaching profession for: (Please tick one)

- Up till retirement/up till end of contract

- Less than 1 year

- 1 to 3 years

- 3 to 5 years

- 5 to 10 years

- 10 to 20 years

- More than 20 years

25. Please think back to your expectations of being a HOD when you first joined teaching. Since your appointment as HOD, would you say that (Please tick one)

- HODship has positively exceeded your expectations

- HODship is about what you expected.. it 'delivered' what you expected

424

- HODship has failed to meet your expectations

26. In what ways has the cluster affected your role as HOD?

_____

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GENERAL

In this section, please provide some general background about yourself. Tick the box that best describes you.

1.

Male

Female

2. I have ....years of teaching experience

1-4 years

5-9 years

10 years or more

3. I have been a HOD for ....years

1-4 years

5-9 years

10 years or more

4. I have ....teachers in my department (please fill in the number)

5. I have attended the following formal training provided by the Ministry of Education

Further Professional Diploma in Education – FPDE

Diploma in Departmental Management – DDM

Not trained yet

Others...(please specify)

6. I am HOD for the following subject area/s

   English Language

   Mathematics

   Science

   Humanities

   Aesthetics/Physical Education

   Languages

   Craft & Technology

   Pupil Welfare

   Discipline

   Others

7. My school is a ....

   Neighbourhood School

   Autonomous School

   Government-Aided School

   Independent School

APPENDIX 7

INTERVIEW SCHEDULE

Introduction

You have recently participated in answering a questionnaire on "The role of heads of department in secondary schools in a School Cluster in Singapore".

The results and analysis of the questionnaire are now available. I would be most grateful if you could give your comments on various aspects of the findings.

Purpose of the interviews

To confirm the findings of the questionnaire.

To get more specific comments on the findings of the questionnaire.

To get reasons for the findings.

To supplement the findings

Questions

Work Culture

1. The research findings show that heads of department perceive that there is a collegial work culture in their schools.

    a) What is your view and why?

    b) What do you think is your role?

    c) How do you feel about the role?

    d) What do you do at whole school level? Do you have a whole school role?

    e) Do you think that you have the support of colleagues?

    f) Do you think that your principal supports heads of department in carrying out their role?

    g) What evidence is there of teamwork in your department

    h) What do you think are the expectations about your role as head of department?

2. The research findings show that heads of department indicate that there is a collegial work culture at cluster level.

a) What do you do at cluster level?

b) Do you think that there is collegiality among heads of department in the cluster? What is the evidence?

c) Is it true that cluster has facilitated intra-cluster relationship among heads of department. What are the ways?

d) What do you think is being done at cluster level to support heads of department in carrying out their role?

e) How has collegial collaboration among cluster heads of department benefited you?

f) Do you think that the Superintendent dictates what heads of department do in their schools?

g) What are the benefits of being in the cluster in relation to your role?

h) In what way/s do you think the cluster superintendent influences the role of heads of department?

Role Tensions

3. The research findings show that heads of department perceive that there are a number of constraints which prevent them from performing their role effectively?

a) Are you aware of the expectations of your role?

b) How do find out about these expectations?

c) Do you think that you have a clear picture of your role?

d) In what ways is your role clearly defined?

e) What are the role functions you have to perform?

f) What do you think you devote most of your time to? Why?

g) Which takes up most of your time? Why?

h) What role functions do you consider important among the role functions? Why?

i) In what ways has the role changed over the last few years?

j) How has the cluster helped in making you more aware of the expectations of a head of department ?

k) What types of support do you get from colleagues in other schools in the cluster?

l) Heads of department indicated that there were some negative impact of the cluster on their role such as increased workload, increased stress and lack of time to complete all tasks. What are your comments on the findings?

m) Do you have time to carry out your role?

n) Do you think that your role is stressful? Why?

o) Do you take part in cluster activities? What are these activities?

p) Do your colleagues in other schools in the cluster discuss their role with you? What do you talk about?

Training & Professional Development

4. The research findings show that generally heads of department perceive that the training and professional development is inadequate?

   a) Did you attend the formal training (DDM/FPDE) provided by the Ministry of Education?
   b) What do you think of 'learning on the job'
   c) Do you think the DDM course is adequate for your role?
   d) What training and professional development opportunities were you given as head of department of a cluster school?
   e) How did you benefit from the cluster subject/support groups?
   f) Do you think the cluster has enhanced your competence as a head of department and in what ways?
   g) What do you think of the professional sharing sessions at cluster level?
   h) What are some of the benefits from collegial sessions?

Others
   a) What are the advantages of being in a school cluster?
   b) What are the disadvantages of being in a school cluster?

APPENDIX 8

SCORING PROCEDURE

i)   **Likert scale items 1 to 23**

Response	Score
5 (to a very great extent)	5
4 (to a considerable extent)	4
3 (to some extent)	3
2 (to a slight extent)	2
1 (to no extent)	1
no response	0

ii)   **Multiple Choice Item 24**

Response	Score
Up till retirement/up till end of contract	5
Less than 1 year	)
1 to 3 years	) 1
3 to 5 years	)
5 to 10 years	2
10 to 20 years	3
More than 20 years	4

iii)   **Multiple Choice Item 25**

Response	Score
HODship has positively exceeded your expectations	5
HODship is about what you expected. It 'delivered' what you expected	3
HODship has failed to meet your expectations	1

APPENDIX 9

FACTOR ANALYSIS with VARIMAX ROTATION

Item no	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
7	.737						
8	.883						
9	.803						
10	.906						
11	.819						
12	.494						
13		.506					
14		.563					
16		.824					
17		.871					
18		.731					
3			.869				
19			.732				
22			.877				
4				.435			
5				.701			
6				.447			
25				.792			
1					.757		
2					.734		
23					.154		
20						.613	
21						.620	
24							.816
15							.120

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APPENDIX 10

SUBSCALE MEANS

Rating Scale: 5=To a very great extent; 4=To a considerable extent; 3=To some extent; 2=To a slight extent; 1=To no extent

Management Attributes (F1)

Item No	Description	Mean Score
7	I feel that my Principal is approachable if I need to speak to her	4.3
8	My Principal understands the difficulties people like me face in our job	3.9
9	My Principal gives enough support and guidance for us to meet our goals at work	4.0
10	My Principal is concerned with the HODs and not only about getting the job done	4.0
11	School management understands the problems of people at my level	3.7
12	School management is accessible to people at my level	4.0
	Total Mean	4.0

Competence (F2)

Item No	Description	Mean Score
13	The Superintendent has positively affected the decision-making processes in my school	3.4
14	Cluster activities have not over-burdened me and my colleagues	2.7
16	Through cluster activities I am better able to appraise the staff in my school	2.8
17	The cluster has facilitated my identification of staff with high potential	2.9
18	I have benefitted from the training organized by the cluster	3.3
	TotalMean	3.0

Workload (F3)

Item No	Description	Mean Score
3	I feel a lot of pressure in my job	3.5
19	I find that I have not enough time to complete all my tasks	3.5
22	I find my job very stressful	3.3
	Total Mean	**3.4**

Expectations (F4)

Item No	Description	Mean Score
4	I know the standards of performance I have to meet for my role	4.1
5	I am given enough facilities/equipment to do my job efficiently	3.8
6	When faced with a difficulty, I can usually count on getting assistance from my colleagues	3.9
25	HODship has met my expectations	3.7
	Total Mean	**3.9**

Satisfaction (F5)

Item No	Description	Mean Score
1	I like the type of work I do	4.0
2	My job makes good use of my abilities	4.0
23	Most HODs in my school are likely to remain in this profession for a very long time	3.2
	Total Mean	**3.7**

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Role Definition (F6)

Item No	Description	Mean Score
20	The HOD's role is clearly defined	3.7
21	The duties and responsibilities of the HOD are clearly spelt out in the job description	3.8
	Total Mean	3.8

Commitment (F7)

Item No	Description	Mean Score
24	I see myself staying in the teaching profession for: up till retirement/up till end of contract, <1 yr, 1-3 yrs, 3-5 yrs, 5-10 yrs, 10-20 yrs, >20 yrs	4.4
15	My relationship with the staff is not negatively affected by the Superintendent	3.6
	Total Mean	3.8