

# The evolution and nature of school accountability in the Singapore education system

Pak Tee Ng

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**Abstract** This paper describes and examines the nature and evolution of school accountability in the Singapore Education System. In particular, the different facets of school accountability are examined through a theoretical framework comprising four relatively distinct concepts of accountability as performance reporting; as a technical process; as a political process; and as an institutional process. This paper also examines the issues and challenges faced by schools as they respond to the demands of school accountability.

**Keywords** School accountability · Policy · Performance indicators · Quality assurance

## 1 Introduction: School accountability

In many educational systems, different stakeholders of schools demand schools to be accountable, each in their own way. School accountability is therefore a term that seems to have multiple meanings. Indeed, there are different ways in which it can be defined, presented or understood. For example, Stecher and Kirby (2004, p. 22) referred to it as “the practice of holding educational systems responsible for the quality of their products—students’ knowledge, skills, and behaviours”. Wöbmann et al. (2007, p. 24) referred to it as “all devices that attach consequences to measured educational achievement”. Indeed, as Levin (1974, p. 363) opined:

Some authors assert that the provision of information on the performance of schools constitutes accountability. Others see accountability as a matter of redesigning the structures by which education is governed. In some cases accountability is defined as a specific approach to education such as performance contracting or educational vouchers, while in others accountability is referred to as

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P. T. Ng (✉)

National Institute of Education, Nanyang Technological University, 1, Nanyang Walk,  
Singapore 637616, Republic of Singapore  
e-mail: paktee.ng@nie.edu.sg

a part of all educational systems. It is common to hear that statewide testing programs as well as recent state legislation which would enable schools to terminate the appointments of “poor” teachers represent a response to the need for accountability.

Given the many ways of understanding this concept, Linn (2003) argued that true accountability was a shared responsibility for improving education, not only among educators and students, but also administrators, policymakers, parents, and educational researchers.

There are also many models of school accountability. For example, Normore’s (2004) model identified the following approaches of accountability: market, decentralized, political, legal, bureaucratic and moral accountability. Carlson’s (2002) model essentially asked “is this a good school?” and “is the school getting better?”. In general, researchers have delineated the typologies of accountability, noting differences among them. Literature in the field generally tries to answer the question of the nature of school accountability with respect to who is holding whom accountable and for what. Generally, it is assumed that the goal of school accountability and its associated accountability-based interventions is to improve teaching and learning (Adams and Kirst 1999; Darling-Hammond and Ascher 1991; O’Day and Smith 1993; O’Reilly 1996).

Some researchers have also examined this issue from a wider political perspective. In a number of countries, government agencies are held accountable for public spending and the services provided with such resources (eg. Atkinson 2005; Mante and O’Brien 2002). School accountability is but an aspect of this higher governmental accountability, which holds policy makers accountable through evaluating their decision-making and use of public money in education. Educational systems in which parents exercise choice in school selection (Hoxby 2003) practise a form of school accountability by making school performance information available to the public.

Therefore, the concept of school accountability can be and has been approached from many different angles. This paper adopts Levin’s (1974) framework for accountability, comprising four relatively distinct concepts of accountability as:

- a *performance reporting process*—This concept is about reporting the performance of schools, usually based on examination and other key student results, under the assumption that the information on such results enables stakeholders to appraise school effectiveness.
- a *technical process*: This concept assumes there is reasonable unanimity on the goals of schooling and the issue is a technical one of getting the goals delivered within the constraints of budget, human resource and other factors. This approach relies mainly on quality assurance models, which aim to improve the efficiency and effectiveness of schools as an operating system.
- a *political process*: This concept asks the pertinent question of whom the schools are accountable to, even if there is agreement on the goals of education generally and schools specifically. A school is a social institution that actually serves a large number of stakeholders, each with its own goals. The balance point lies in the political process which favours one group over another.

- an *institutional process*: This concept raises questions about the legitimacy of the process by which education is currently defined and delivered. From this perspective, professionals in the system are asked to reflect upon the way in which schooling can lead to a better society.

Using Levin's framework, this paper describes and examines the nature and evolution of school accountability in the Singapore Education System. While there are many overlapping models of school accountability, Levin's (1974) model was chosen to analyse the Singapore case study for two reasons. Firstly, it is a model that shows clearly the concepts of school accountability that are strong in Singapore and those that are weak. Secondly, it is a 'classic' model that suitably highlights how the concept of school accountability evolves according to the developmental stages of the Singapore education system. This paper also examines the issues and challenges faced by schools as they respond to the demands of each concept of school accountability. It argues that school accountability as an institutional process is the weakest among the four concepts and needs to be more strongly emphasised as Singapore seeks an educational transformation.

## 2 School accountability as a performance reporting process

According to Levin (1974), school accountability as a performance reporting process is the most straight forward and common definition of the accountability concept. The assumption underlying the performance reporting interpretation of school accountability is that by reporting examination and other key student results, school effectiveness could be objectively appraised. In Singapore, school accountability as performance reporting currently comes in three major ways: school ranking, the School Excellence Model (SEM) and the School Awards system.

School ranking is an issue in the Singapore educational system that has generated heated debates among citizens, school professionals and members of parliament. Since 1992, all secondary schools and pre-universities have been ranked annually and the results published in the local media. There are three main ranking criteria (Ng 2007):

- the students' overall results in the national examinations;
- the 'value-added-ness' of the school by comparing the students' examination performance with the score with which they gained entry to the school; and
- the students' performance in the National Physical Fitness Test and the percentage of overweight students in the school.

However, not all stakeholders in education approved of such a ranking exercise. Some of the criticisms were the heightened competition among schools, the narrow focus on results to the detriment of holistic education and the overwhelming pressure on students. An external review team commissioned by the Ministry of Education (MOE) in 1997 pointed out the negative aspects of school ranking (Ministry of Education 1997) and set up the momentum to re-examine the ranking exercise. Although ranking continued after the report, it was subsequently modified in 2004. Instead of ranking schools based on exact academic scores, schools with similar

academic performances are now banded together and exact ranking positions are not made known to the public (Ng 2007, 2008a).

It may appear that nearly 7 years elapsed before ranking was modified to banding. However, in the mean time, an event significant to the issue of school accountability in Singapore took place in 2000. During that year, the MOE introduced a self-assessment model for schools, called the School Excellence Model (SEM). This model was adapted from the various quality models used by business organisations, namely the European Foundation of Quality Management (EFQM), the Singapore Quality Award (SQA) model and the education version of the American Malcolm Baldrige National Quality Award model (MBNQA). According to the MOE (2000), the SEM aims to provide a means to objectively identify and measure the schools' strengths and areas for improvement. It also aims to allow schools to benchmark against similar schools. This is supposed to stimulate activities that will improve school quality and ultimately the quality of the education system. The way that the SEM operates has been discussed by Ng (2003). Briefly, the model assumes that there are organisational factors, called 'Enablers', which produce outcomes called 'Results'. Each of the categories, 'Enablers' and 'Results', takes up half the total score in the SEM. The 'Enablers' category comprises five assessable criteria of Leadership, Strategic Planning, Staff Management, Resources and Student-Focused Processes. The 'Results' category comprises four assessable criteria of Administrative and Operational Results, Staff Results, Partnership and Society Results, Key Performance Results. Key Performance Results, which usually comprise school results in the national level examinations and other key learning areas, account for 30% of the total score in the SEM (Ministry of Education 2000).

A third way of performance reporting is the School Awards system. The Masterplan of Awards for schools is linked to the SEM. There are four levels of awards (Ministry of Education 2004). At the first level, Achievement Awards are given to schools each year for the year's achievements. Development Awards are also given to schools for achievements in Character Development and National Education. At the second level, Best Practices Awards (BPAs) are given to schools to recognise them for their good scores in the Enablers category. The Sustained Achievement Awards (SAAs) are given to schools to recognise them for sustained good scores in the Results category. The Outstanding Development Awards are given to schools to recognise them for outstanding and sustained achievements in Character Development and National Education. At the third level of the awards, the School Distinction Awards (SDAs) recognise the high-achieving schools with exemplary school processes and practices, and are on their way to the School Excellence Awards (SEAs). At the apex level of the awards, the School Excellence Awards (SEAs) give recognition to schools for overall excellence in education processes and outcomes. Information on the number and type of awards achieved by each school is published on the MOE website (Ministry of Education 2004). Therefore, this is a form of performance reporting to the public regarding the achievements of the school. However, one notes at this stage that the achievements of schools are published but not the 'failings' of the school. The SEM scores and the SEM reports are also kept confidential. This point will be addressed in a subsequent section in this paper.

While performance reporting is a ‘popular’ form of school accountability globally, Levin (1974) raised two serious questions about viewing school accountability as performance reporting. Firstly, it is assumed that there is unanimity on the objectives of education among stakeholders. In Singapore, this is both true and untrue. Culturally, Singapore is a society that is result-oriented. Parents want results. Employers look for results. The government emphasises results (Ng 2005a). In this sense, there is unanimity in the goals of education. However, the government is now increasingly emphasising a different type of goal. As the globalised knowledge age economy accords premium to creativity and innovation, the government wants to adopt a broader definition of success to cultivate different types of talent. The education system has achieved many enviable results, especially in the area of Mathematics and Science, evidenced by the Trends in International Mathematics and Science Study (TIMSS) results (Tharman 2005a). Despite the ‘success’ in achieving ‘quantity’, the ‘quality’ aspect of education was inadequate. The students were passive learners, driven externally to perform but not necessarily engaged or inspired (Tharman 2005b; Ng 2008b). Moreover, the students were not innovative or entrepreneurial enough for the knowledge-age economy (Ng 2005b). Therefore, to address these issues, the government has attempted to shift the focus of education from ‘quantity’ to ‘quality’ and adopt a broader definition of success (Tharman 2005b; Ng 2008b). However, the culture in the country has not shifted much in this area. Parents and other relevant stakeholders are still predominantly focused on examination results. With such good outcomes reported each year, key stakeholders may not wish to change the educational paradigm. The biggest enemy to educational reform in Singapore is its success!

Secondly, Levin (1974) questioned how the provision of information through mechanism of accountability as performance reporting would actually alleviate observed deficiencies in educational outcomes. It might in fact reinforce certain deficiencies. Because of performance reporting in an era of increasing educational marketisation in Singapore (Mok 2003; Tan 2005), some schools ‘played it smart’ by focusing narrowly on those outcomes that were relevant for the assessment system and that would be made known to the public to attract students and parents (Tan 2005). This happened not only in examinable subjects. Even in physical education, the MOE has acknowledged that some schools have over-emphasized preparation for the National Physical Fitness Test at the expense of the acquisition of skills in sports and games, simply because this test was part of the key performance indicators (Tan 2005). Therefore, school accountability as performance reporting has added pressure to many schools. Heightened inter-school competition may make it more difficult to foster cooperation among schools when the various schools are vying with one another to boost their schools’ standing in the education marketplace. Indeed, the real school mission may become a quest to outdo another school (Ng and Chan 2008).

### 3 School accountability as a technical process

According to Levin (1974), another perspective of school accountability is that of a technical process. In this approach, the assumption is that the goals of schooling are

reasonably unanimous among stakeholders. The challenge is then a technical one of getting the goals delivered within resource constraints. This approach relies mainly on quality assurance models to improve the efficiency and effectiveness of schools.

In Singapore, school accountability as a technical process is clearly demonstrated as part of the current School Excellence Model (SEM). The ‘Enablers’ category precisely evaluates the efficiency and effectiveness of the technical process of schooling within a school. In evaluating the technical process, the SEM requires (MOE 2000; Ng 2003):

- a sound and integrated approach for systematic, continuous improvement for all criteria of quality defined by the model;
- a systematic deployment of the approach and the degree of implementation;
- a regular assessment and review of the approaches and their deployment, based on monitoring and analysis of the results achieved and on-going activities;
- an identification, prioritisation, planning and implementation of improvement activities;
- a set of appropriate and challenging performance targets;
- a continuous improvement of results over three to five years;
- a benchmarking of performance against comparable schools; and
- an identification of the causes of good or bad results.

Each school in Singapore has to use the SEM to conduct self-assessment yearly. An external team from the MOE validates the self-assessment results approximately once in 5 years. The assessment process requires explicit evidence to justify a certain score. Without evidences, the SEM does not permit a score beyond that for ad hoc performance, which is generally a low score. Moreover, to score well, a school must provide evidences of continuous improvement in that assessed criterion through trend analysis (Ng 2003). Other than the MOE school awards, schools may also apply for various other quality certification and awards in the industrial or commercial sectors. To do so, schools may request for additional external validations, other than the once-in-5-years mandatory one, to qualify for these awards.

Serious questions have also been raised regarding school accountability as a technical process. Firstly, the school is the unit of examination and interventions, but the individual is the unit of action (O’Day 2002). In other words, such a view of school accountability assumes that targeting the school unit will generate the desired changes in the individuals within that unit. However, what is lacking is the mechanism by which accountability at the school level can be used to mobilise changes in individuals (O’Day 2002). The conditions for such changes at the individual level are unclear. Such a view of school accountability also assumes that it is possible to use external control to improve internal operations. But many have argued that rules decreed from on high often have very little impact on school operations, especially when it comes to very subtle and entrenched ones, such as the processes of teaching and learning (Elmore 1996; Marion 1999).

In Singapore, the underlying theory in the SEM is that self-evaluation coupled with external validation will provide information for schools to engage in learning and innovation. Theoretically, there is a feedback loop in the model so that the

outcomes of the appraisal process in the ‘Results’ category leads to learning and innovation in the ‘Enablers’ category. However, like many other countries (eg. Ehren et al. 2005; Ehren and Visscher 2006; Maier 2010; Perryman 2009), the validation or appraisal exercise, which takes substantial time and effort, does not necessarily translate into improvements. Some teachers are cynical of such an exercise and find all sorts of ‘excuses’ not to deal with the feedback. Others are too busy catering to the demands of the system itself. This includes data gathering, collection of evidences, trend analysis, information reporting, report presentation and extensive documentation. The lack of time is a very hard obstacle to overcome for making teacher learning and school improvement a reality (Tye 2000). Ng (2007) wrote:

The SEM is a good diagnostic system for self-appraisal and identifying areas for improvement, and could be coupled with an appropriate quality improvement action framework. But it does not necessarily promote cutting edge innovation. In practice, in order to score well on the SEM, many people may be bogged down by data collection and report writing. The generation of the report may not be matched by an equally enthusiastic follow-up action because people are already exhausted getting the report out. This takes the momentum away from improvement and innovation.

Secondly, the collection of information for this technical process can be also problematic in schools (O’Day 2002). For school accountability as a technical process, information is the life-blood of the accountability mechanism. However, the essential questions of what information to collect and how it is to be collected in a meaningful way are left inadequately addressed. What are valid and reliable indicators in the various assessment criteria? Moreover, the interpretation of the collected information is also a judgement call. Therefore, the school finds itself in a position of having to argue its case by presenting data in such a way to create a favourable impression with external inspectors. According to O’Day (2002), much of the information is irrelevant to the improvement of teaching and learning but distracts and draws away attention and resources from the main work of staff and students.

This paper has indicated in an earlier section that in Singapore, the government has begun a movement to shift the focus of the education system from ‘quantity’ to ‘quality’. This policy initiative, launched in 2005, is called ‘Teach Less Learn More’ (TLLM) (Ng 2008b). TLLM is about developing engaged learners among students through curriculum and pedagogical reform. Some outcomes that TLLM hopes to achieve among students include self-directed learning, deep understanding of concepts, appreciation of subject, and knowledge construction and sharing. Pedagogies are expected to shift from knowledge transmission to knowledge construction, didactic teaching to social constructivism, and summative grades to provision of formative feedback. In an era of TLLM, how does one define quantitatively the idea of such ‘quality’? As it stands, in responding to the stipulations of school accountability as a technical process, there is pressure to look for quantifiable performance indicators, which may or may not pick out the subtle nuances of quality change. How does one measure engaged learning, social constructivism, knowledge creation and subject appreciation in a valid and reliable

way across schools? Even for a concept such as ‘value added’, which is very prominent in many quality assurance models, the issue of validity and reliability is not straightforward at all (Van de Grift 2009). Are school teachers equipped with the deep professional knowledge to construct valid and reliable indicators for the subtle qualities required in TLLM? Moreover, the MOE has also empowered each school to search for their own recipe of success because “schools are in the best position to decide how to run their school programmes based on the students they have and the competencies of their staff” (Teo 2000). The SEM in theory allows benchmarking across schools. But, other than certain examination results which are standardised in the country, how can an indicator for one school be valid or reliable for another school, when each school is unique and empowered to design its own processes?

Thirdly, there is a question of whether accountability as a technical process is more applicable in a business world where profit margin is the bottom-line. Levin (1974, p. 368) wrote:

Perhaps the one factor that all of these methods share is their similarity to devices used in business and industry. Cost-accounting systems, employee productivity ratings, contracting for services, cost-effectiveness analysis, and information systems for management decision making all represent technical methods that are used widely by industry and business in their search for efficiency. Yet most firms have a fairly well-defined objective (profit or sales maximization), and thus can utilize technical approaches to efficiency without concern for underlying political conflicts of the sort that arise among the many constituencies served by the educational system.

This makes the comment by Ng (2003, pp. 37–38) pertinent:

For many years, the world of education has been unsullied by influences from the business and management world. With the recent influx of business models, certain school leaders may question whether the use of an excellence model is appropriate and whether it can really deliver on its promise. For example, is it appropriate for a school to aim for excellence against all the SEM criteria? Can a school be an excellent school without collecting evidence of its excellence? Can a school be an excellent school, just simply known for its caring teachers and values inculcation? Certain school leaders may feel that the SEM and its requirement to collect evidences is just a hindrance because the school has been doing all the right things except that it has not been keen on codifying everything and producing evidences.

#### 4 School accountability as a political process

According to Levin (1974), the concept of accountability as performance reporting and as a technical process assumes that there is a general agreement among stakeholders on the goals of education. However, in reality, a school actually serves a large number of stakeholders with differing goals. Each of these stakeholders would like the school to fulfil its own expectations but the school could not fulfil all



of them because there are limited resources. Therefore, the concept of school accountability as a political process addresses the pertinent question of to whom the schools are accountable. Schools answer to some groups more than others. It depends on the power that the particular group has over the school. It takes a political process to find this subtle point of balance.

There are two questions in this regard. Firstly, to whom are Singapore schools accountable? Secondly, is there a power struggle for the accountability of schools among the various stakeholders? The official response to the first question is reflected in this government publication:

Schools are responsible to parents and the community for providing the best programmes and a high quality of education to their students... (Ministry of Education 2000)

Although it is stated that ‘schools are responsible to parents and the community’, in reality, the schools are accountable to the government while the government is accountable to the citizens through democratic elections. In Singapore, almost all schools are government schools. All teachers, heads of departments, vice principals and principals are employed by the government and are civil servants. In general, they do not answer to a school board but to the government through the Ministry of Education (MOE). In a political and administrative sense, the government is the most important stakeholder of the school. Serving the national agenda is the remit of the school. Of course, each school has a moral and education responsibility to the parents, students and community. But the school does not report to them. The school reports to the MOE. Schools are not funded by parents or the community. Schools are funded by the MOE. Parents or school boards of government schools do not hire or terminate school leaders or teachers. The power resides with the MOE. Therefore, there are two valid perspectives of the situation. One, Singapore schools (with the exception of a few independent and private schools) are accountable politically and administratively to the MOE. Two, these schools are the operational arms of the MOE. In a way, that could explain why SEM scores and reports are confidential to MOE and the school concerned. The winners of School Awards are published but not the SEM reports. A failing on the part of a school is a failing on the part of the government.

The fact that schools are actually accountable to the government was made very clear when, despite a number of parliamentary debates about it, ranking continued as a government decision. Teo Chee Hean, who was then the Minister for Education, explained to the Parliament:

I think academic ranking is still important, because it is a matter of accountability to you. If we do not have ranking, you would ask for it, which is what happened in the United States, in the United Kingdom and other jurisdictions. The parents, taxpayers and Members of Parliament wanted to know how their schools are doing, in relation to other schools in the world... We will be silly to give up ranking, because it is an important tool of accountability for schools. We can rank them on a number of different areas. That I agree. But to stop ranking them, I think it would be to give up a tool of accountability to you, something which our schools and educators owe to you. (Teo 2002)

The Singapore government has been described as pragmatic, paternalistic and controlling (eg. Neo and Chen 2007; Trocki 2006). The education system has always been a critical vehicle for supporting political agenda and economic strategies (Ng 2005a). The Singapore government carries a great responsibility for economic survival as a nation, which include achieving educational outcomes and providing high value for fiscal spending. Therefore, as Singapore continues to revamp its education system by empowering the schools to customise education to the needs of the students and to be innovative, the government still wants a certain level of control to ensure that ends are achieved. Ng (2008a, p. 122) wrote:

So, on one hand, the government attempts to decentralize power, give autonomy and devolve responsibilities to the schools. On the other hand, there is a risk of declining educational standards once government controls are lessened, hence the need for a robust quality assurance system.

A robust quality assurance system insures against the loss of control and facilitates authoritative communication and managerial scrutiny (Watkins 1993). Performance reporting and technical accountability ensure a greater degree of responsiveness to central direction and control. Although the government has repeatedly stated its intention to decentralise its power to the schools to encourage diversity and innovation, empowerment to schools is actually a diversity of means with an accountability of ends. Schools have to support the national, social and economic strategies. This is the accountability of schools. Calling this government strategy ‘centralised decentralisation’, Ng (2008a, p. 123) wrote:

Therefore, the schools face a paradoxical trend of centralisation within a decentralisation paradigm. The more the decentralisation of tactical matters, the more the centralisation of strategic directions. The government wishes to maintain and promote high quality education on the one hand, and to empower schools to be flexible enough to diversify and innovate on the other. Schools are therefore put in a position of having to think out of the box while doing well within the box. The challenge is for educators to embrace this paradox to achieve the best of both worlds.

Given that the government is the one that the schools are actually accountable to politically and administratively, is there a power struggle in Singapore among various stakeholders for schools to be accountable to them? According to Levin (1974), the complexity in making schools accountable when there are different expectations from different stakeholders is very high. Those who have more power under the existing system of governance will receive greater responsiveness to their agenda. With respect to them, school accountability is high. For those who have less power in the system, school accountability appears low. However, in Singapore, such power struggles are not obvious. There will always be small pockets of subterranean tensions surrounding school accountability in any country. But the situation in Singapore is generally harmonious. There are two reasons why this is so.

Firstly, the national agenda is aligned with social and parental expectations. Good results and hard work are still the goals for everyone. It is true that the government has tried to move towards a broader view of educational success,

and emphasize thinking, creativity and innovation. But, it has not played down the importance of achieving examination results. Therefore, there is no conflict in this deeply entrenched result-oriented mindset in the country. In fact, the government appears to be more eager to change the status quo than the citizenry, even though it is trying to achieve both results *and* creativity. It will take a slow political process to change the societal mindset. In the mean time, schools are left with the task of walking the tight balancing rope of fulfilling the government agenda of school reform for quality education and parental expectation of good examination results (Ng 2007, 2008b).

Secondly, the government has been careful in managing and negotiating any political discourse and dynamics. Thus, while the government has been described as elitist (Barr 2006) and there are signs of increasing income gaps in the country (Mukhopadhaya 2003), it has generally not forsaken the students at the lower rungs of society or from disadvantaged families. Indeed, huge investments have been poured into education for them. For example, during the 2009 global economic crisis, the MOE enhanced its financial assistance measures to help needy students cope with the downturn. Spending some Singapore \$23.4 million, the MOE also provided a one-time grant to schools to support school-based financial assistance schemes (Ministry of Education 2009).

## 5 School accountability as an institutional process

According to Levin (1974), the above discussion about school accountability from the perspectives of performance reporting, technical, and political processes assumes that there is a tacit acceptance of the general structure of education and schooling. However, the overall institution of schooling is not challenged seriously. This is where accountability as an institutional process becomes pertinent. It challenges the legitimacy of the current definition and delivery of education. It exhorts educational professionals to reflect on how schooling can *really* lead to a better society. In such a paradigm, educators need to reflect critically on broad and contextual issues so as to maintain a deep appreciation of their work and not just look myopically at their own practices (Zeichner and Liston 1996; Ng and Tan 2009). Moreover, the emphasis should shift from merely problem-solving, towards building “a critique of schooling, from the perspective of education, and to improve education in schools” (Zeichner and Liston 1996, p. 27).

For example, the current school system may serve to reproduce and reinforce the current class structure in the society by sorting children according to results or other performance characteristics and legitimise an unfair social reward structure based on a narrowly defined meritocracy. The word ‘merit’ in many societies is narrowly confined to examination results and other measurable performances. In fact, globalisation drives a form of ‘global meritocracy’ (Florida 2005; Brown and Hesketh 2004) that heightens inequality in societies. ‘Merit’ does not take into account of the other more subtle aspects of human character, values, or aspirations. In particular, Illich (1971) proposed a deschooling of society, believing that the abolishing of the formal schooling would actually lead to the flourishing of

educational alternatives throughout the society that really catered to the learning needs and aspirations of the child.

In Singapore, this concept of school accountability is the weakest among the four concepts because the formal structure of schooling is deeply entrenched in the society and it is not easy to overhaul this in a short time. Indeed, professional reflections among educators, though encouraged by the MOE, are generally confined to the educational technical processes within the current educational paradigm (Ng and Tan 2009). Moreover, who should lead in this form of school accountability? The fact remains that the education system and its accountability structure are in many ways a working system. Results are produced. Children, rich or poor, do get a decent education. The professional educators are busy implementing national initiatives and designing school-based programmes. There is little motivation for a redistribution of power even though power is concentrated in the hands of the government. Therefore, it appears that even if school accountability as an institutional process is given more prominence, the paradox will be that this initiative will have to be centrally driven, measured rather than free-flowing, balanced rather than radical. The chances of deschooling (Illich 1971) are remote when schooling appears to work so well for most of the stakeholders in their current mindsets. It is not likely for this concept to establish itself over the other three concepts of accountability in the short run. Yet, it is perhaps what the country needs most for its educational reforms, a point that will be revisited in the next section.

## 6 A historical perspective of school accountability in Singapore

Perhaps, as suggested by Levin (1974), although there are four different concepts of school accountability, there are sequential stages at which each of these concepts may apply. A narrative of the historical development of school accountability in Singapore may be useful here. From the narrative, one could perceive how the emphasis shifted accordingly to global economic conditions and the way Singapore responded to these global influences. According to Ng (2008a), quality assurance in Singapore's primary and secondary education went through three phases of development:

- Phase of standardisation (mid 1960s to mid 1980s)
- Phase of local accountability (mid 1980s to mid 1990s)
- Phase of diversity and innovation (mid 1990s to today)

Throughout the three phases, school accountability as a performance reporting process and the same as a technical process were clearly and strongly demonstrated. The result-oriented psyche and technical managerialism style did not diminish with the times. From the perspective of school accountability as a political process, the government was always firmly in control of the schools and its national agenda was paramount, compared to that of other stakeholders. School accountability as an institutional process was always weak, if not non-existent. However, as the education system progressed through the phases, there were subtle changes in the emphasis.

According to Ng (2008a), Singapore started with a phase of standardization from the 1960s to the 1970s, which focused on school accountability as performance reporting and a technical process. At that time, Singapore has just gained its independence (in 1965) and there were major weaknesses in the education system, ranging from low standards among schools, ineffective curriculum, poor literacy to high resource wastage. The government conducted an urgent review of the educational system and the subsequent results and recommendations of the review cumulated in the 1979 Goh Report (Goh and Education Study Team 1979). The review identified the main weaknesses as poor work processes and a lack of professional management of the schools (Wee and Chong 1990). The solution was standardisation based on a prescribed performance model. Significant reforms were recommended in the areas of work processes, the management of schools and the curriculum. School appraisal was introduced in 1980. Conducted once every four to five years by an external team of inspectors from the education ministry, four main areas were appraised: management of school, instructional programmes, extra-curricular activities and pupil welfare programmes. At that point in time, the main aims of school appraisal were performance reporting and technical conformance to standards in each school. The uneven and divided educational system was centralised, standardised and made relevant to the political and economic realities of nation building and industrialisation (Sharpe and Gopinathan 1996). From the perspective of school accountability as a political process, the government was firmly exerting control on the schools and implementing its national agenda. School accountability as an institutional process was understandably almost non-existent.

The mid-1980s ushered in a phase of local accountability (Ng 2008a). After the standardisation reforms during the 1970s, a basic standard of educational effectiveness and efficiency was achieved among schools in general. But this basic standard was found insufficient in the mid-1980s as Singapore prepared itself for the 1990s. The 1985 global economic crisis surfaced many weaknesses in Singapore's basic industrial economy. A high-power economic review committee, set up in 1986, indicated in its Economic Committee Report (Economic Committee 1986) that Singapore's economy had to develop high value-adding technology and service industries in order to survive. In particular, quality in education would have to be raised to support the economic strategy. The strategy was to make schools improve quality at the local level and be accountable for it. One of the most significant events during this phase was the introduction of school ranking in 1992. Competition among schools made them improve. Throughout this phase (mid 1980s to mid 1990s), the performance reporting and technical aspects of school accountability were still very strong. However, an opposite movement was also taking place. For a few high-achieving schools, they were given more autonomy from central control to look for breakthroughs (for example, three schools were granted 'independent' status with freedom in hiring and firing school leaders and teachers, setting fees, deciding on admission policies, undertaking financial projects and developing curriculum). Issues of school accountability as a political process began to appear, albeit mild and contained. To the critic, how independent was an independent school? School accountability as an institutional process was still almost non-existent.

The move to free schools was a prelude to ushering in the phase of diversity and innovation, which was a continuation of the move to free schools from central control. According to Ng (2008a), through the efforts of the previous phases, the education system has indeed achieved a level of conformity to standards. But, there was much reliance on headquarters and external appraisal. The formula of success in the 1980s was that for doom in the 21st century. There was then an urgent need to improve the innovation capacity and internal quality assurance capacity of the schools in order to create more educational pathways.

Schools are now given more autonomy to tailor education to the needs of their learners. With this autonomy, school accountability is increasingly seen as a political process to mediate the expectations of various key stakeholders in the educational system. As the society progresses, parents who are more educated and sophisticated expect more from the schools. School accountability as a political process becomes more pertinent. Even so, as this paper has explained in an earlier section, the situation is still generally harmonious. Social and parental expectations are very much aligned with one key goal of the schools—that of results. Through the government's centralised decentralisation strategy (Ng 2008a), it has exerted strategic control on the schools while giving them tactical autonomy. The introduction of the SEM was one such measure. On one hand, it has given schools the tactical power of self-appraisal. On the other hand, it has spelt out the macro parameters and exercise strategic control through key performance indicators and external validation.

But as Singapore proceeds more deeply into the transforming its education system to respond to globalisation and the knowledge age, what is necessary may be to position school accountability increasingly as an institutional process, which aims to change the fundamental nature of education itself. As Tharman Shanmugaratnam, former Education Minister, said:

We have a strong and robust education system. It is a system well recognized for the high levels of achievement of our students, in all the courses we offer. Our students aim high, and do well by most international comparisons. In recent years we have begun repositioning our education system to help our young meet the challenges of a more competitive and rapidly changing future... education has to evolve. We have to prepare for the workplace of the future, which will be very different from the past. If we think we are doing all we need to do because it has worked in the past, we will be blindsided by the changes happening around us. (Tharman 2003)

School accountability as an institutional process is harmonious with the governmental effort at shifting the focus of education from 'quantity' to 'quality', where teachers are exhorted to review the core of education—the 'why', 'what' and 'how' of teaching (Tharman 2005b; Ng 2008b). It also signifies that the system has begun to mature because it has developed an internal reflective capacity for system renewal, instead of relying only on external scrutiny. But with the schools busy with implementing policies and striving for results, school accountability as an institutional process remains weak.

School accountability as performance reporting, technical process and political process are here to stay, at least in the foreseeable future. However, fundamental education reform requires the education system to move beyond pre-specify correct

behavioural responses and performance indicators (Ng and Tan 2009). Instead, what schools need are ‘qualities of judgement and decision-making which are indicative of capacities to make wise and intelligent responses in novel and unpredictable situations’ (Elliott 1991, p. 313). Measures that subject teachers “to the micro-management of ever tightening regulations and controls that are the very antithesis of any kind of professionalism” (Hargreaves 2000, p. 169) are not helpful to finding the breakthrough necessary for a significant and sustainable education transformation. This paper argues that for education in Singapore to shift from quantity to quality, the country needs to shift towards a school accountability model that is characterised by a somewhat equal emphasis on all four concepts of Levin’s (1974) accountabilities—performance reporting, technical, political and institutional. School accountability as an institutional process does not reduce any tension or paradoxes in the system. But it encourages educational professionals to challenge existing thinking and bring change out of the tension.

## 7 Conclusion

This paper has described and examined the nature of school accountability in the Singapore Education System through Levin’s (1974) theoretical framework of school accountability as a performance reporting process; as a technical process; as a political process; and as an institutional process. For each concept, this paper has examined the issues and challenges faced by schools as they responded to the demands of school accountability in Singapore. In particular, this paper has argued that throughout the history of Singapore, the performance reporting and technical aspects of school accountability have been strong and clear, and they were expected to remain so. However, with the education ministry pursuing a centralised decentralisation strategy in managing schools, school accountability as a political process will become more prominent and pertinent. Even so, if Singapore is to change the fundamental nature of education itself to respond to the needs of globalisation and the knowledge age, school accountability as an institutional process will have to be increasingly emphasised.

The debate about school accountability usually centres upon the fidelity of the schools to the demands upon them. However, paradoxically, many of the current criticisms of schools seem to suggest that schools are too accountable to the overall social, political and economic agenda of the society. Such strict accountability simply reproduces an educational system that is not any different from the existing one, which has been increasingly accused of not measuring up to the needs of the knowledge age and the demands of globalisation. Increased school accountability will simply reinforce the same inadequate school system and produce more efficiently the inadequate outcomes. That does not mean that the outcomes are not good in themselves, but they are simply inadequate for the future. Globally, many reform efforts fall prey to the persistent ‘grammar’ of schooling (Tyack and Tobin 1994). Therefore, in moving forward, a pertinent question for further research and analysis is to re-examine the assumption of school accountability as a lever for reforming the educational sector in Singapore. Undoubtedly, it is possible for school accountability to lead to educational improvement. But is the current school

accountability paradigm *the way to transform education? What are the effects (desirable or otherwise) of the various forms of school accountability? This paper argues that the likelihood of the current school accountability paradigm in changing the fundamental nature of education in Singapore is rather remote. But it is definitely good at keeping the current robust system going in the foreseeable future.*

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