

**Mauritian Principals' Responses to  
Total Quality Management Concepts in Education**

by

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Submitted in fulfilment of the requirements for the degree of  
Doctor of Philosophy

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DEAKIN UNIVERSITY



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## Acronyms and abbreviations

BEC	<i>Bureau de l'Education Catholique</i>
BSI	British Standards Institution
CDC	Curriculum Development Centre
CPE	Certificate of Primary Education
EFA	Education for All
EPZ	Export Processing Zone
GDP	Gross domestic product
HSC	Cambridge Higher School Certificate
ICT	Information and Communication Technology
MBNQA	Malcolm Baldrige National Quality Award
MBO	Management by objectives
MBWA	Management By Walking About
MEAC	Ministry of Education, Arts and Culture
MEHR	Ministry of Education and Human Resources
MES	Mauritius Examination Syndicate
MESR	Ministry of Education and Scientific Research
MIE	Mauritius Institute of Education
MLA	Monitoring Learning Achievement
MML	Minimal Mastery Level
NASSP	National Association of Secondary School Principals
NCCRD	National Centre for Curriculum Research and Development
NICs	Newly Industrialised Countries
NIST	National Institute of Standards and Technology
OBE	Outcome-based education
OFSTED	Office for Standards in Education
PDSA Cycle	Plan-Do-Study-Act Cycle (Deming Cycle)
PLS	Plain Language Statement
PSSA	Private Secondary Schools Authority
SACMEQ	Southern African Consortium for Measuring Educational Quality
SAT	Scholastic Aptitude Test
SEM	Structural equation modelling
SC	Cambridge School Certificate

SPC	Statistical process control
SRC	Student Representative Council
SQAQ	School Quality Assessment Questionnaire
TQC	Total Quality Control
TQE	Total quality education
TQM	Total Quality Management
UNESCO	United Nations Educational, Scientific and Cultural Organisation

## Abstract

An acknowledged major dysfunction of the educational system in Mauritius centres on the conservative and rigid end-of-primary school examination system. This provides competitive selection for a few highly demanded ‘star’ secondary schools, thereby fuelling an inequitable education environment. Concurrently, the poor quality of a large number of both primary and secondary schools is a cause for serious concern. Despite various educational reforms implemented by the government to remedy the situation, this quality crisis in schools seems to persist.

As a small island country, Mauritius is relying on its human capital and innovative hi-tech industry to ensure future economic viability in the global market. Mauritian education authorities are therefore seeking ways to improve schools and raise educational standards so as to contribute to an efficient and dynamic workforce. One idea being canvassed is that *Total Quality Management (TQM)*, a leadership and management philosophy used extensively by business enterprises to compete in a globalised world, could provide the framework for Mauritian school leaders to deliver imperatives for change and improvement and to achieve the government’s often-stated aim of ‘world-class quality education.’

However, whilst there is a burgeoning literature on TQM and a quality culture in education, little research attention has been given to the practical processes of implementing TQM concepts in the realisation and sustainability of quality in schools, and when this has been done it has tended to be limited to higher education institutions but rare at school levels. Moreover, no research has covered this topic in the Mauritian context. Even with the growing body of evidence, additional research is necessary to determine the impact and relative importance of school leadership in its adaptation to local contexts.

In this research, I focus on exploring Mauritian principals’ current leadership practices in line with TQM tenets and their perceptions about the usefulness or otherwise of ideas implicit in TQM to transform schools more systematically. To this end, I chose an explorative empirical design and collected data through a nationwide questionnaire survey of school principals, followed by in-depth interviews with a convenience sample of six principals.

The findings indicate that whilst principals overwhelmingly agreed with current notions and thinking compatible with the TQM philosophy, they have not fully translated them into their practice and their discourses were mainly theoretical. Based on principals' responses, the research identifies challenges and opportunities worthy of discussion for school leadership and school improvement in twenty-first century Mauritius with its high-tech, world-class ambitions.

What emerged from the research is a conceptual framework and an associated set of guiding principles, informed by a thorough literature review of the field and capturing school principals' pertinent ideas, that might inform future research and possible collective action for continual quality improvement. It not only fills a gap in scholarship, but is also the first ever to be customised for the particular Mauritian context in the hope of finding means to address the current quality crisis in schools.



## *Chapter 1*

### **The Mauritian context and the problem**

*Nothing can be more central to the future of humanity as we enter this third millennium than the provision of high quality and effective education.*

Nelson Mandela, Opening address of the 26th International Conference on Improving University Teaching, Johannesburg, South Africa, July 2001

#### **1.1 Introduction**

One of the most important developments to influence schools in the last twenty years has been the drive for quality<sup>1</sup> education (Mukhopadhyay, 2005; Sallis, 2002; Steyn, 2004). It is generally agreed that providing a high-quality education is crucial for a country's social and economic development and international competitiveness (Hayward & Steyn, 2001; Miller, 2001; Steyn, 1999; Romer, 2008). Mauritius, being a small island country that relies to a great extent on its human capital as its chief resource, is fully aware that its economic future is intrinsically tied to its ability to establish and maintain a high quality education system with a strong focus on quality teaching and learning.

However, concerns that the education system has not been adequately preparing students for work and life and unsatisfactory academic achievement in schools have fuelled the government's drive to explore ways to redesign the education system and improve the quality of schools. This is why Mauritius has embarked on a series of educational reforms since the 1990s. In particular, the ongoing reform programme undertaken since 2001, aims at making access to quality education a fundamental right and not a privilege. This reform rests on three fundamental and inter-related pillars: promoting equity and equality of opportunity, ensuring relevance, and improving efficiency and effectiveness (Ministry of Education and Scientific Research (MESR), 2001a, 2001b, 2003).

In this thesis, I examine the shortcomings in the implementation of the 2001 reform from a quality management perspective coupled with an ethical leadership stance. I argue that if Mauritius is to sustain its economic competitiveness and keep pace with rapid changes in the international technological stage, education will have to be

fundamentally different so as to contribute to an efficient and dynamic workforce. In particular, I sought to investigate through this thesis research whether *Total Quality Management* (TQM), a leadership and management philosophy that has enabled business enterprises to compete in a globalised world (Deming, 2000; Oakland, 2003), could provide the framework for Mauritian school leaders to deliver imperatives for change and improvement and to achieve the government's often-stated aim of 'world-class quality education' (Ministry of Education and Human Resources (MEHR), 2006a, 2006b; MESR, 2003). The catalyst for this line of inquiry was spearheaded by reference to TQM-compatible principles in the Mauritian Ministry of Education reform policies and plans for improvement (MEHR, 2006b; MESR, 2001a, 2001b, 2003).

Personally, I was inspired to explore TQM further when my own professional reading led me to find several researchers who have made a connection between educational improvement needs and TQM practices. Indeed, TQM has been used to create major changes for improvement in educational institutions and has been found to be successful (Blankstein, 2004; Bonstingl, 2001; Steyn, 2000; Tribus, 1996; Weller & McElwee, 1997) although this literature is not prevalent, and hence my inquiry into TQM as an idea instigated by the Mauritian schooling system. The essence of my research was to explore school leaders' current practices and responses to ideas implicit in TQM, and uncover their ideas about school improvement and reform. In this way, I would be testing the veracity of previous researchers through the Mauritian context by seeking the views of current principals to see if such possibilities are already evident in their perceptions and actions and, if they are not, whether they endorse TQM tenets as useful in a future of reform.

My review of the literature revealed that TQM has similar tenets to those expressed in current educational leadership research, namely those relating to ethical leadership (Duignan, 2005, 2007; Sergiovanni, 2006; Starratt, 2004). The perspectives of school principals surveyed and interviewed for this thesis, their congruent responses and positive reactions to the TQM idea, suggested that TQM tenets are considered valuable for school improvement in Mauritius by school principals.

In this chapter, I provide a broad outlook of the context of the study and the problem, the main aim and objectives of the research, and the research journey travelled

towards my conclusions. First, it is necessary to gain an understanding of the Mauritian education system and the factors that have impacted on it.

## **1.2 Context of the research**

### **1.2.1 Development of education in Mauritius**

Mauritius was successively a French colony and a British colony before gaining independence in 1968. It was during these colonial periods that major political, economic, social and educational changes were introduced which have had a significant and lasting impact on the country's development. In particular, the present formal education system has largely been modelled on the British system (Bunwaree, 1994; Sunhaloo, Narsoo & Gopaul, 2009).

In the post-independence period, Mauritius has made significant strides in the field of education. The growth of education came about with the government's policy to democratise education when primary education was made free for all. This resulted in near universal enrolment at primary level long before primary education was made compulsory in 1991 (Kulpoo & Soonarane, 2005). In 1977, the government's decision to introduce free secondary education caused enrolment, especially girls', at the secondary level to increase considerably (Bessoondyal, 2005). The education wave was thus an inexorable one in the developing Mauritian society. The enactment of the Education (amendment) Act (2004) in the National Legislative Assembly introduced the 11-year schooling provision as from January 2005 and made secondary education, both academic or vocational, compulsory up to the age of 16.

Mauritius has also had its fair share of challenges in the education sector. External factors, such as unfair terms of trade, pose a threat to the sustainable funding of education (Romer, 2008). The pervasive influence of selection examinations constraining access from primary to secondary education is a problematic issue (MESR, 2004; Minges, Gray & Tayob, 2004). The government itself recognises that:

This had been a major stumbling block to equity promotion as well as having a deleterious effect on the quality dimension since it became an instrument of selection in the context of a dramatic mismatch between demand and supply for [admission seats] ... in a few highly regarded secondary schools. (MESR, 2004, p. 5)

The progress that the country has recorded on various indicators of human development has in itself posed real challenges for education. A diversified economy creates a demand for a wide range of skills and expertise that the education system is expected to provide. A relatively sophisticated and vibrant population demands a greater say in matters regarding education development. Changing life-styles and rising living standards imply higher expectations from the education sector. These are all real challenges for the education system in the context of a learning society and a global economy.

### **1.2.2 The Mauritian educational system**

In Mauritius, schools of many types and most schools are supported (grant-aided) by the state. State and private schools (which may also be religious, mostly Catholic, schools) are distinct schooling systems, although all government-registered. There are also a handful of private/independent (unaided), fee-paying schools. Private schools recruit their own teachers whereas teachers in state schools go through a government agency selection panel.

The Mauritian education system has a 6-5-2, three-stage school structure similar to that of the British; that is, six years of compulsory primary schooling from Standard I to Standard VI leading to the Certificate of Primary Education (CPE), followed by five years of compulsory secondary education from Form I to Form V leading to the Cambridge School Certificate (SC), and two additional optional years of higher secondary, called Form VI Lower and Form VI Upper, ending with the Cambridge Higher School Certificate (HSC).

Examinations at the end of each level regulate the flow of pupils to the next level. At primary level, promotion from one grade to the next is automatic until Standard VI when pupils sit the CPE examination. Pupils who are unsuccessful in this national examination and are under 12 years of age may stay on at primary school for a further year in order to re-sit the examination. Before 2002, the CPE examination was used for certification purposes and for ranking pupils for admission to the highly rated secondary schools, commonly called the 'star' schools. Many pupils preferred to sit for the CPE examination a second time to secure a better rank and thus gain access to better secondary schools. However, ranking was abolished in 2002 and a

grading system has been used since. Pupils who are unsuccessful twice or are past the 12-year age limit for primary schooling but fail in the examination are provided with the opportunity to follow a three-year pre-vocational course at the secondary level with a specific, skills-based curriculum (Bessoondyal, 2005). These children would have otherwise been rejected from the system after primary schooling.

Although there have been shifts in approaches to education, inclusion of societal goals, and broadening of curricular concerns, it would be fair to state that these have generally been based on ‘discipline-oriented’ academic activity (Sunhaloo, Narsoo & Gopaul, 2009). The system of school education brought by France and Britain to Mauritius in its colonial past institutionalised close regulation through inspections and examinations. Passing examinations for certification and employment led to the proliferation of rote-based pedagogies and a textbook culture, and these features remain the visible symbols of poor quality in Mauritian education (Bah-lalya, 2006).

### **1.2.3 Major educational reforms in Mauritius**

Following independence, various commissions have been appointed to examine the education system and to make recommendations for its improvement. Most of the reports expressed concerns about the very high rate of failure at the end of primary schooling and the extremely competitive nature of the examination system. In the 1990s, Mauritius made two major attempts at reforms: the Master Plan on Education (Ministry of Education, Arts and Culture (MEAC, 1991) and the Action Plan of Mauritius (MESR, 1998). The former reform aimed at re-orienting the education system to make it more efficient and adaptable to the changing needs of the Mauritian society, and focused on a number of objectives such as broadening access and equity, improving the quality of teaching and learning, and strengthening management of the education system. The latter reform reinforced what was spelled out in the previous one.

An important factor at work is the reality of globalisation in the current century. Knowledge is a major condition for full membership in this ‘global village.’ In view of the repositioning of Mauritius to meet the needs of an increasingly competitive, knowledge-based and globalised economy, the government is adapting to become an ‘information and knowledge society’ (Castells, 2001), or a ‘cyber island’ that would

be the hub of development in the Indian Ocean sub-region (Chan-Meetoo, 2007; MEHR, 2006a). Since the beginning of this new century, Mauritius has therefore also placed much emphasis in developing its Information and Communication Technology (ICT) sector to make it an emerging pillar of the economy (Chan-Meetoo, 2007; Mingos, Gray & Tayob, 2004).

In line with the national goal of developing the country into a cyber island, Mauritius has started working towards ‘world-class quality education’ (MEHR, 2006a, 2006b; MESR, 2003), and the ongoing reform policies undertaken since 2001 are to be seen in this context. The fundamental aim of this ‘2001 educational reform’, as I shall henceforth refer to it, is to provide quality education for all Mauritian children, in the spirit of the goals and objectives set by the World Education Forum on *Education for All* (EFA) in Dakar in 2000 (UNESCO, 2000). The Dakar Declaration seeks to achieve EFA by 2015 and requires all nations not only to expand participation in education but also aims at “improving all aspects of the quality of education and ensuring excellence of all so that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy, and essential life skills” (Saito & van Cappelle, 2009, p. 2). This educational reform initiative is also aligned with the strategic objectives defined by the United Nations Millennium Development Goals (United Nations, 2006).

The 2001 educational reform proposals were presented in the following policy documents:

- *Reforms in Education: Curriculum Renewal in the Primary Sector* (MESR, 2001b);
- *Ending the Rat Race in Primary Education and Breaking the Admission Bottleneck at Secondary Level: The Way Forward* (MESR, 2001a);
- *Towards Quality Education for All* (MESR, 2003).

The Curriculum Renewal in the Primary Sector policy reform (MESR, 2001b) proposed a re-structuring of curriculum to address the new vision of Mauritius of becoming a cyber island and shifting to a knowledge economy. It focused on overhauling the primary curriculum to give children a broader-based and more relevant education responsive to societal and global needs. Accordingly, ICT has been introduced as a school subject in all primary schools since January 2003

through the *School Information Technology Project* launched in 2000 (Minges, Gray & Tayob, 2004), and its use as a supporting and enabling tool for education is being promoted across the whole spectrum of primary schooling. Other subjects such as Science Education, Citizenship Education, Health and Physical Education and the Arts have also been introduced. Among other recommendations proposed and implemented, the Rat Race policy review (MESR, 2001a) extended compulsory education to the age of 16 years and offered an alternative, pre-vocational stream of secondary education to the ‘failures’ of the CPE examination. Further reform proposals were made in the Quality for All policy document (MESR, 2003) that complemented the recommendations in the earlier two documents. As indicated in these documents, the core of the 2001 reform rests on three fundamental, inter-related pillars: (i) increasing access and equity, (ii) ensuring relevance, and (iii) promoting achievement.

A key objective of the 2001 educational reform is to abolish the highly selective system and to further democratise education. As acknowledged in the Rat Race policy (MESR, 2001a, p. 1), “the major dysfunction of the Mauritian educational system is to be found in the bottleneck situation” created by the national ranking of the CPE examination and hence “constraining access from primary to secondary education”. To illustrate this, the document mentions that, for the 18,000 children who passed the CPE examination, there were only 1,000 places available in the small number of ‘star’ schools, perceived as providing quality education at the secondary level. The majority of the other schools, considered as low-achieving or sub-standard, do not attract and are even resented by parents although the physical infrastructure may be good. Consequently, although every Mauritian child is guaranteed a seat in a state or private secondary school, there is a severe competition, evocatively referred to as the ‘rat race’, among the children to have a chance to enrol in the ‘star’ schools beginning right from the lower primary years, which emphasises the ‘end’ rather than the ‘process’ of learning and which exerts immense psychological pressure on both the children and their parents.

### **1.3 Statement of the problem: the dire need to improve quality in Mauritian schools**

The Rat Race policy (MESR, 2001a) specifically addressed the public's concern that the system was failing. Prior to 2001, each year, on average, some 30-40% of pupils failed the CPE examination and dropped out of school (after being allowed a second chance to take it). With the policy introducing compulsory education to 16 years, repeaters (or those who failed the exam a second time) are now offered a prevocational stream attached to 'mainstream' secondary schools. However, this policy has not had the desired impact on achieving its objectives. The average failure rate on the CPE examination over the years 2001 to 2005 was 35.6%, the failure rate in 2004 was 37%, and in 1995 it was 34.7% (MESR, 2005). It appears that the outcomes of primary schools as represented by the percentage of students passing CPE have been stagnating for the past 10 years. The 2001 reform does not seem to have helped schools to perform better.

The Rat Race policy (MESR, 2001a) requested the abolition of the national *ranking* of the CPE examination, which was used to manage the high and unmet demand for admission to the star schools, and substituting it as of January 2003 by an alphabetical *grading* system (A = 75% and above, B = 65-74%, etc.) and a regionalisation of admission, whereby all children obtaining the minimum pass grades are selected to join a secondary school within their 'catchment' area. But the grading system is a softening of the previous ranking system and has not produced the desired results, as evidenced by the status quo in the transition rate of primary graduates into mainstream secondary schools (Bah-lalya, 2006).

Another area of concern is the phenomenon in the Mauritian system of creating a class of repeaters in the Standard VI grade – those children who have failed the CPE exam and are required by law to repeat the grade. Although the dropout rate in the primary sector is very low because of automatic promotion, there is a very significant repetition rate estimated at about 20% in Standard VI (MESR, 2003). Admittedly, it is hard to determine whether this extra year can be justified on educational grounds. Moreover, access to the alternative pre-vocational stream is viewed as a 'holding ground' for under-achievers and those who fail the examination. Access to mainstream secondary education is still 'bottlenecked' and the CPE examination



continues to be perceived as a mechanism for social exclusion, largely affecting the socially disadvantaged (Bunwaree, 1994).

The Curriculum Renewal in the Primary Sector policy (MESR, 2001b) contributed to the overloaded nature of the curriculum by adding additional examinable subjects as well as entrenching its restrictive nature by stressing content over competency approaches despite the rhetoric. Thus the curriculum is still viewed as being very overloaded, not holistic or child-centred enough, and is dominated by the national examinations. There is a general public perception that the huge stress on children and their parents associated with these high stakes examinations has remained unchanged and perverts the very function of the school within the society.

The paradox of the Mauritian educational system is that although all children have access to primary education, a significant proportion of them cannot successfully remain in the system. As I noted earlier, primary education fails between 30% and 40% of all children every year. It seems that the primary school system is not delivering basic learning outcomes after six years of schooling for a significant proportion of pupils. This situation is at odds with the view that “[a] quality education system must manage to provide all children and young people with a comprehensive education and with an appropriate preparation for working life, life in society and private life” (Fredriksson, 2004, p. 2), and puts the long-term economic competitiveness of Mauritius as a global player in jeopardy. There is a heartfelt need in Mauritian society to restructure education delivery at the primary level.

Widening participation concerns equitable distribution of learning opportunities. To measure such effects, factors hindering participation need to be collected such as dropout rates and absenteeism. Kulpoo and Soonarane (2005) introduced a cohort follow-up study of 21,240 pupils from Standard I to Form VI between 1998 and 2000; their study reports a significant drop in enrolment in the transition from primary to secondary education: 26% of the pupils in Standard I did not enter Form I, 60% of the same cohort did not reach Form V, and 73% did not reach Form VI. The government also presents a cohort from 1990 to 2002 which reveals similar trends (MESR, 2003). Indeed, the government cites “high rates of repetition and dropouts across all levels as one of the major causes for reform” (MESR, 2003, p. 8). The

current policy context puts pressure on the government to ensure an effective, beneficial and equitable secondary education system.

In the above discussion, I have identified the scarcity of admission seats in secondary education and perceived disparities between the so-called 'star' schools and other secondary schools with regard to the provision of quality education as major causes of restricted access and its consequence, the 'rat race.' This situation is now being challenged by the construction of some fifty new state secondary schools in order to improve access and to come as close as possible to the ideal of EFA (Minges, Gray & Tayob, 2004). However, such a focus on access has overshadowed the issue of quality. As Bissoondoyal (2007, p. 7) blatantly puts it, "Secondary 'schools' were sprouting like mushrooms without appropriate infrastructure and other resources, including human resources." The EFA Global Monitoring Report 2005 states that "Quality stands at the heart of Education for All. It determines how much and how well students learn, and the extent to which their education achieves a range of personal, social and development goals" (UNESCO, 2004, p. 18). Whilst giving all children the opportunity to attend school is obviously an important priority, it is only a first step towards EFA. Once pupils find seats in a classroom, they need quality education and the educational system needs to be managed and staffed efficiently.

Mauritius, as a country that relies largely on its people as its key resource, cannot afford to lose significant proportions of its human capital if it wants to compete in the global market. The current economic situation is highly vulnerable with the worldwide tendency to dismantle protectionism and the erosion of the country's preferential trade agreements (Sunhaloo, Narsoo & Gopaul, 2009). The emergence of China as a global textile export country and low-cost competitor increasingly affects the Mauritian textile industry. Mauritian's tourism industry, associated with the environmental risks of over-expansion, is also becoming more challenged by other neighbouring countries, such as South Africa and the Seychelles, that wish to further develop their own tourism. Moreover, Mauritius is often vulnerable to natural disasters such as cyclones and droughts. Under such circumstances, its resources being primarily human, Mauritius is attempting to become a cyber island by developing a 'knowledge hub' conveniently located between Asia and Africa (Chan-Meetoo, 2007; MEHR, 2006a). However, as Chan-Meetoo (2007, p. 5) alleges pessimistically, "Although we might make some progress towards such a vision in

the not too near future ..., it remains far-fetched for the time being and one can therefore justifiably argue that we are faced with either a case of modern utopia or outright myopia.” In particular, how far do the current curriculum, quality of teaching and learning, and educational system contribute to the aspiration of the country to develop into a cyber island? This question needs to be dealt with.

#### **1.4 Main aim and objectives of the research**

It is in the context of increasing economic needs of Mauritius to position itself as an intelligent nation state in the vanguard of global progress and innovation, increasing pressures on the government to improve the quality of schools so as to contribute to an efficient and dynamic workforce, and the shortcomings/failure of the 2001 educational reform in helping to achieve these objectives, that I situate my research. It explores principals’ receptivity to the main ideas inherent in TQM, their views about how quality improvement issues are being or may be addressed, and whether these bear resemblance with the tenets of TQM which has been used to transform organisations outside of education (Dale, 2003; Deming, 2000; Evans & Dean, 2004; Oakland, 2003).

Padhi (2005, p. 1) succinctly summarises the main features of TQM as follows:

It is an integrated organisational approach to bring continuous improvement in products, services and processes along with proper tools, technology and training to meet customer’s expectations on a continuous basis through total employees’ involvement. The ‘total’ part of TQM emphasises that it is an all round excellence effort and is not about one aspect of the company. The ‘quality’ part of the TQM emphasises upon not only quality product but also quality services. Quality is operationally defined under TQM as meeting or exceeding customer’s expectations. The ‘management’ part of TQM implies that, it is a management approach, not just a narrow quality control or quality assurance function.

My own interest in TQM as a leadership paradigm has its genesis in the fact that TQM appears to embrace the kinds of tenets that are consistent with much current literature about school improvement (e.g. Hargreaves & Fink, 2003, 2004, 2006; Leithwood *et al.*, 2004, 2006). Anecdotal evidence also provided a hunch that a TQM-type philosophy was broadly acceptable to school principals: discussion with a

senior lecturer at the Mauritius Institute of Education (MIE), who has an interest in TQM in education, suggested that TQM would be the answer to the current quality crisis in schools although this claim had not been tested empirically. These all provided suitable grist for this PhD study. I therefore sought to seek out current school leaders' views about the sorts of practices that would make radical transformations for school and systemic improvement and reform, and whether or not these bore any resemblance to the principles implicit within TQM, and hence my motivation to undertake the present research. This led me to pursue the following broad research question:

*What perceptions exist amongst school leaders in Mauritius about school and systemic improvement and the usefulness or otherwise of TQM in raising quality and equity in Mauritian schools?*

This overarching research question captures the main aim of my research and incorporates the idea of investigating whether principals believe the quality discourses being pursued by the Ministry of Education are also being pursued in their schools. To this end, the main research aim was guided by the following specific objectives:

- **Research objective 1:** To investigate quantitatively, from principals' perspectives, whether and the extent to which current school leadership practices in Mauritius have elements in common with TQM principles in assessing the current quality climate in schools;
- **Research objective 2:** To investigate qualitatively, from principals' perspectives, whether current school leadership practices bear resemblance with the TQM philosophy to inform school improvement, and whether other TQM-like tenets not currently in use could be usefully adapted for this purpose; and
- **Research objective 3:** To discuss implications for school leadership and school improvement in Mauritius, based on principals' responses in the empirical study.

The empirical design chosen was of an explorative nature and included mixed methods. Self-administered, quantitative questionnaires were sent to all Mauritian principals for completion to assess the current quality climate in schools. Subsequently, semi-structured, qualitative interviews were conducted with a

purposive or convenience sample of six principals. The six schools selected for interviews were those identified in the earlier questionnaire survey that scored highest in terms of their current application of TQM-related elements. These schools were also suggested to me by the Mauritian education authorities, as being schools that had a track record of placing student achievement and school improvement at the top of their strategic agenda.

### **1.5 Significance of the research**

Whilst there is a burgeoning and promising literature on TQM and a quality culture in education, little research attention has been given to the *practical* processes of implementing TQM concepts in the realisation and sustainability of quality in schools (Macy, Neal & Waner, 1998; Pool, 2000; Steyn, 1999), and when this has been done it has tended to be limited to higher education institutions (Padhi, 2005). Of course, there are studies by the likes of Leithwood *et al.* (2004, 2006) and Hargreaves and Fink (2003, 2004, 2006), for example, that have researched “how principals influence school effectiveness, [but] less is known about how to help principals develop the capacities that make a difference in how schools function and what students learn” (Davis *et al.*, 2005, p. 4). Unexpectedly, even in a business context, TQM advocates have been criticised for providing only a minimal understanding of the implementation issues (Reshef, 2000).

Even with the growing body of evidence, additional research is necessary to determine the impact and relative importance of school leadership in its adaptation to local contexts. What is significant about this study is that qualitative, inductive research that privileges the lived experience and views of current school principals about how the Mauritian schooling system can be improved has never been conducted, nor has any quantitative study been carried out for that purpose. The overall desirable effect of my research would be its meaningful contribution to debates about ending the rat race in the transition from primary to secondary schooling and avoiding the bottleneck admission situation in secondary schools, so as to eliminate the wastage of human resources with which the system has been traditionally fraught.

## **1.6 Chapter structure of the thesis**

I present my thesis using a six-chapter structure. First, the present chapter, *Chapter 1*, is an introductory orientation to my research project and its rationale, and outlines the path I travelled towards my thesis' conclusions.

*Chapter 2* embodies the literature review part of the thesis, in which I aim to build a theoretical foundation upon which my research is based. I identify the characteristics of TQM that appear to be applicable, compatible and relevant for education and schools in general. In this chapter, I also discuss the concept of 'quality' in education and the inherent difficulty in defining it. I go on to investigate the issues involved in using TQM-related principles as a basis for school improvement, the ethical issues involved in their deployment and their pertinent critiques.

In *Chapter 3*, I describe and provide justification for the research methodology and design adopted to collect the data that is subsequently used to meet my research objectives. Importantly, I cover a discussion of validity and reliability issues, and ethical considerations, associated with each research instrument used. I also acknowledge some limitations of my research.

In the next two chapters, I focus on presenting, analysing and interpreting the data collected for their relevance to my main research aim and objectives, within the context of my reviewed literature. More precisely, *Chapter 4* and *Chapter 5* deal with the quantitative and qualitative data, respectively.

The last chapter, *Chapter 6*, provides a conclusion to this research project. I present a summary and discussion of findings with respect to both the quantitative and qualitative phases of the empirical study. For each phase, I also discuss implications for school leadership practice and scholarship. Finally, I make recommendations for further research.

## **1.7 Conclusion**

This chapter is meant to serve as an introductory orientation to my research project and to lay the foundations on which it has been undertaken. To this end, I have described the context of my research and provided a broad outlook of the problem. I

have framed my research question to guide my research, formulated the main aim and objectives of my research and discussed its significance. Throughout the chapter, I have briefly referred to the salient literature associated with my topic. Finally, I have outlined the chapter structure of my thesis and a synopsis of each chapter.

In the next chapter, I review critically the literature related to my study. I have foregrounded above my observation that much literature on school improvement bears resemblance to the kinds of principles inherent in TQM (Sallis, 2002). I have also stated that an important intention was to explore the receptiveness of Mauritian school leaders to TQM principles being used in education. To launch the research, my first concern was to interrogate the TQM literature generally and the TQM literature that pertains specifically to its use in education, especially from an ethical school leadership angle.

### **Note**

- 1 In Chapter 2, section 2.2, I discuss in some detail the concept of ‘quality’ in education and the inherent difficulty in defining it.

## *Chapter 2*

### **TQM and how it has been applied in education**

*Soon the thought interrupted again. Quality? There was something irritating, even angering about that question. He thought about it, and then thought about it some more, and then looked out of the window, and then thought about it some more. Quality? ... It wasn't until three in the morning that he wearily confessed to himself that he didn't have a clue as to what Quality was, picked up his briefcase and headed home ... and when he woke up the next morning there was Quality staring him in the face.*

Robert M. Pirsig, *Zen and The Art of Motorcycle Maintenance: An Inquiry into Values*  
(1974)

#### **2.1 Introduction**

The extant literature reveals a number of proponents of TQM in education and widespread endorsement of TQM-like and TQM-compatible principles as the basis for school leadership and school improvement. In this chapter, I present a general overview of how TQM has been adopted and adapted in education. 'Quality' is a term used pervasively in education and TQM appears to have been influential in the 'quality' movement in many spheres including education. I explore a variety of definitions of the concepts of quality and TQM provided by different theorists and researchers in the literature with particular reference to an education context, in order to understand TQM and to pursue the research objectives set in this study.

An historical development of quality management and an overview of the TQM philosophy as proposed by prominent pioneers in the field, namely Deming, Juran and Crosby, are provided so as to gain a better understanding of origins, highlight key trends and key studies in the field, and make a context for relevance in education. This is followed by a review of the principles of TQM and their compatibility with and applicability in the education sector. I also identify and describe pertinent models for the management of quality, together with strategies for the implementation of TQM in schools. Finally, I provide a critical perspective on the application of TQM in schools.



Throughout this chapter, I also provide an analysis of the working dynamics of a topical area of educational leadership: ethical school leadership. It is an important attempt to focus sharply on the notion of shared/distributed leadership and other related leadership practices corroborating with the tenets of TQM, and that might deepen our understanding of the associated, yet under-researched, ethical dimension of TQM implementation in schools.

## **2.2 Defining quality in education**

Anybody who has read Robert Pirsig's (1974) famous philosophical novel *Zen and the Art of Motorcycle Maintenance* will realise that quality is such an enigmatic and elusive concept: one cannot tell what quality is until one sees or feels it! Undoubtedly, there have been difficulties to arrive at a clear definition of quality in the field of education, and yet the word has gained prominence in educational circles despite the lack of definition. The debate continues between those who identify quality in education with excellence (Peters & Waterman, 1982), value addition (Feigenbaum, 1983), conformance of educational output to goals (Crosby, 1979), defect avoidance in educational processes (Crosby, 1979), and meeting or exceeding customers' (parents' and students') expectations of education (Parasuram, Zeithaml & Berry, 1985). These debates have led to further questions related to educational outcomes (Juran, 1999; Wadsworth, Stephens & Godfrey, 2002), and educational standards (Middlehurst & Gordon, 1995).

A popular conceptualisation of quality in education is from the *school effectiveness* perspective, which advocates the 'black box' technique of measuring inputs and outputs (Teddlie & Reynolds, 2000). The measures of effectiveness focus on several quantitative criteria. For instance, the percentage of students who graduate at secondary school level and the percentage of students getting high grades are the most widely used indicators of school effectiveness. However, these are restricted indicators of quality as there are some qualitative, immeasurable attributes of good education which describe more of what goes on in the teaching/learning process that helps to produce the output rather than the output of the teaching/learning process per se. According to Hoy, Bayne-Jardine and Wood (2000, p. 13), "[m]easures that can be used as yardsticks for quality of education are pupil grades, attendance figures,

staying-on (retention) rates, exclusion rates, teacher qualifications, pupil-teacher ratios.” These measures can be linked to the ‘internal efficiency’ of the school system, which, in addition to indicating what goes on in the process, controls for wastages and aids decisions on improving the provision of education (Liston, 1999).

In Saitoti’s (2003) view, the major determinants of quality education include inputs such as curriculum content, relevant instructional materials and equipment, physical facilities, conducive learning environments, the quality of the teaching force, as well as assessment and monitoring of learning achievements. Saitoti (2003) believes that quality education should shift from the mere passing of examinations or certification to encompass the development of independent, analytical, cognitive and creative potential of the individual including critical imagination, spiritual and ethical values. Indeed, some authors have also indicated their reservation that school effectiveness fails to accommodate the moral aspect of education. As Reid (1997, cited in Holt, 2000, p. 5) argues, “the term ‘effective’ is devoid of moral content, and it is an inappropriate concept to apply to the moral activity of schooling.” This comment is important because this thesis has canvassed explicitly the moral or ethical dimension of educational leadership in the pursuit of quality in schools.

Another way of looking at quality in education has centred on its linkage with ‘accountability’: schools that impose and fulfill the benchmarks and persistently work to achieve standards stipulated in the system’s educational objectives are accountable, and hence are assumed to possess quality. Hoy, Bayne-Jardine and Wood (2000, p. 10) state that:

Quality in education is an evaluation of the process of educating which enhances the need to achieve and develop the talents of the customers of the process, and at the same time meets the accountability standards set by the clients who pay for the process or the outputs from the process of educating.

This benchmark-based concept of quality is problematic too. Even if the curriculum and instructional processes are poorly designed, schools may well meet standards and target grades if they teach to the test. Besides, there is no guarantee that these standards are worth achieving in the first place. Hence, despite accountability, schools may lack quality (Winch, 1996). In a decentralised system of school-based management, a school can innovate by designing a broad-based curriculum and

offering a wide range of learning experiences, thereby encouraging students' engagement and enhancing quality (Holt, 2000). Having said that, there is very little evidence to suggest that devolved, school-based management leads to 'quality' in education (Abu-Duhou, 1999).

The International Commission on Education for the 21st century called for holistic education of children, that will promote their mental, physical, intellectual and spiritual development. Quality education must be viewed in the broader context of its interaction with society and supported by the four pillars of learning: learning to know, learning to do, learning to live together, and learning to be (UNESCO, 1996). Holt (2000, p. 4) argues that:

[E]ducation is concerned with the development of minds of pupils; schools produce educated persons who, by virtue of their schooling, make their way in society to their own and society's benefit. So far so good; but we encounter a difficulty immediately. How are these benefits to be construed? Is our aim to be the pursuit of happiness? The creation of wealth through capitalism? The religious life, made manifest? Our concept of quality is dependent on which we choose.

Furthermore, in many societies, social goals change with time. America's priority on human rights and personal freedom in the 1960s has changed to a focus on success in the global economy in the 1990s (Mukhopadhyay, 2005). Britain's current education policy is on schools demonstrating what students 'know and can do' rather than numinous goals (Holt, 2000). A Japanese white paper on education in the 1990s shifted its focus from the application or adaptation of science and technology to pursue the objective of the "Nation Based on the Creation of Science and Technology" (Harayama, 2001, p. 9). The social goal in Mauritius has also changed from a literate society in the 1970s to a knowledge society in this new millennium, and emphasis is also shifting from the supposedly previous 'value-neutral' education to a value-based one (MEHR, 2006a) so that the balance between objective 'facts' and questioning these facts becomes a great challenge to the professional teacher (see also Fredriksson, 2004).

Perhaps the most familiar notion of quality is that it has *absolute* or *relative* connotations (Sallis, 2002). The implications of absolute quality products are high standards of production and presentation associated with expensiveness, rarity and

prestigiousness. As Pfeffer and Coote (1991, p. 4) put it, a product or service has the attribute of absolute quality when “[m]ost of us admire it, many of us want it, few of us can have it.” In education, this would apply to an elitist and exclusive system, exemplified, in Mauritius, by the few highly demanded ‘star’ schools. On the other hand, relative quality is perceived when similar products or services supplied by several organisations are compared at a given time and place, or when products or services of the same organisation are compared over time (Sallis, 2002). In Mauritius, for example, it is not uncommon that while some parents are scrambling to get their children admitted in one particular school for good quality education, some others withdraw their children from the very same school for dissatisfaction with its ‘quality’ of education. Parents, as customers/stakeholders, define the quality of education differently. In general, the public sees quality as more to do with the total effect schooling has on the individual rather than just examination results (Hoy, Bayne-Jardine & Wood, 2000). Reference is also made to relative quality over time, for example, when people nostalgically recall how good their school experience was when they were themselves students.

The concept of quality in education is rapidly changing over time, but it also has different emphases according to different national education sectors, cultures and different stakeholders – students, teachers, parents, policymakers, the business community, etc. – with different interests in the education system. So, “[quality] has endless possibilities of evolution and unfolding, making it an endless journey with a deliberate purpose and design and not necessarily a destination” (Mukhopadhyay, 2005, p. 18). In this sense, defining quality is an elusive ideal. Moreover, exact definitions of quality are not particularly helpful when actual consequences flow from different meanings attached to quality (Sallis, 2002). The diversity of definitions, dimensions and attributes that are included in discussions of quality is so great that systematic and reliable investigations are often difficult to conduct, nor is it clear which definition of quality is being considered or which dimensions are being included (Winn & Cameron, 1998).

Appropriately, a significant breakthrough was achieved in 1988 with the establishment of the Malcolm Baldrige National Quality Award (MBNQA) in the USA. Jumpstarting a small, slowly growing quality movement, the US Congress mandated the development of a common framework upon which judgments of

quality processes and outcomes could be based. The MBNQA, or Baldrige Award, now represents America's most prestigious organisational honour for innovation and performance excellence and is presented to organisations in the manufacturing and service sectors including healthcare and education (Foster *et al.*, 2007).

### **2.3 The Malcolm Baldrige National Quality Award framework**

A concern across the developed world over the past two decades is the continuing escalation of educational costs with no demonstrable improvement of results (Karathanos, 1999). In common with the Mauritian context, there is a growing perception that education, including elementary and secondary education, is failing to keep pace with the standards of quality required to remain competitive in a global economy.

The competitive nature of the global economy and the growing requirements to succeed in the US market provided impetus for the passage of the Malcom Baldrige National Quality Improvement Act into law in August 1987 (Belohlav, Cook & Heiser, 2004). This led to the establishment of a competitive MBNQA programme in 1988, whose aim "is to improve quality and productivity in the USA by establishing guidelines and criteria that can be used by organisations to evaluate their own quality improvement efforts" (Foster *et al.*, 2007, p. 334).

The Baldrige Award is administered by the National Institute of Standards and Technology (NIST), a non-regulatory agency of the US Department of Commerce, with the assistance of the American Society for Quality (ASQ) and is presented annually to US organisations by the President of the United States. The MBNQA criteria are widely recognised throughout the international business community as a comprehensive and systematic framework for assessing performance excellence and for guiding quality improvement efforts so as to achieve organisational excellence. It is to be noted that the Baldrige model is not aligned with a particular scholar or practitioner's thinking but rather encompasses a comprehensive variety of viewpoints on quality (Dean & Bowen, 1994).

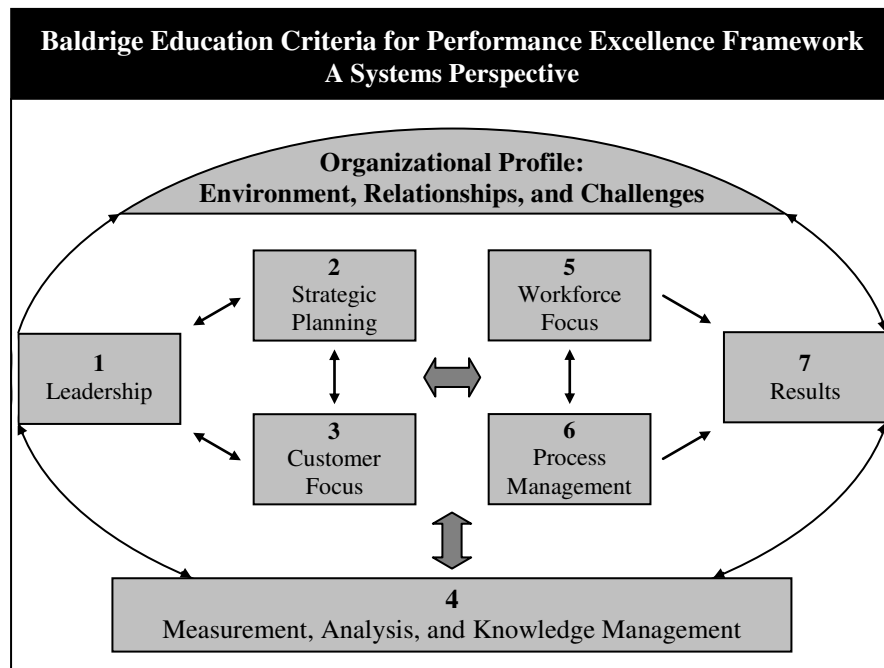
In the years since 1995, on the basis of the success of this award system in the business sector, the MBNQA assessment framework has been extended to education

and healthcare (Meyer & Collier, 2001). The Baldrige Quality Award for education was implemented for the first time in 1999 (Karathanos, 1999). The MBNQA *Education Criteria for Performance Excellence* released in 1998 are a set of interrelated, results-orientated requirements defined through seven categories or dimensions, and the Baldrige Award is given to educational organisations that are judged to be outstanding in these seven dimensions, which are (Bonstingl, 2001; NIST, 2010):

- A. Leadership;
- B. Strategic Planning;
- C. Student and Stakeholder Focus;
- D. Information and Analysis;
- E. Faculty and Staff Focus;
- F. Educational and Support Process Management; and
- G. School Performance Results.

The general MBNQA theory that ‘leadership drives the system which creates results’ suggests that the performance relationships are recursive (Meyer & Collier, 2001). A criticism would be that MBNQA may rest on traditional, hierarchical conceptions of leadership, depending on who is doing the assessment (see for example, Cunliffe, 2009; Starr, in press (a)). The model itself has evolved over time, from a recursive model with the relationships between the dimensions being specified in a particular direction to a non-recursive model that includes numerous bi-directional relationships. Non-recursive models such as the current Baldrige framework (2009-2010) shown in Figure 2.1 are quite difficult for researchers to test because they suggest that all the dimensions are related and that the direction of causation between them is unknown (Meyer & Collier, 2001; Olson, 2009).

The 1992-1996 framework depicted in Figure 2.2 indicates the relationships between the different dimensions in a recursive nature amenable to testing. The relationships between the dimensions were articulated this way by the MBNQA between 1992 and 1996 before being altered significantly in 1997 (Flynn & Saladin, 2001). This version of the model was in use when the pilot criteria for the healthcare and education sectors first became available (Olson, 2009).

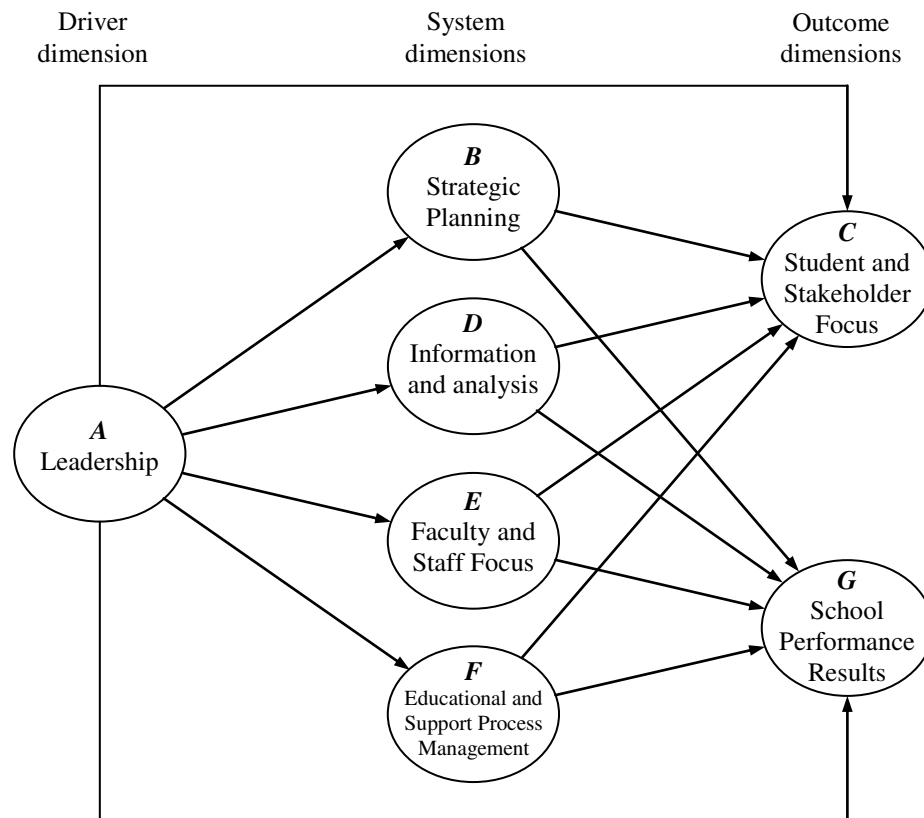


**Figure 2.1 Relationships between the dimensions in the 2009-2010 Baldrige framework for education (NIST, 2010)**

In the 1992-1996 framework, the seven Baldrige dimensions A to G are assumed to be related in a recursive causal model and that the sign of each path coefficient is positive. So, for example, leadership's direct effects in the causal model are represented in two ways: first, as the score of the 'driver dimension' of *Leadership* increases, the scores of the four 'system dimensions' of *Strategic Planning*, *Information and Analysis*, *Faculty and Staff Focus*, and *Educational and Support Process Management* also increase; and second, as the *Leadership* score increases, the scores of the two 'outcome dimensions' of *Student and Stakeholder Focus* and *School Performance Results* should also increase. *Leadership's* indirect effects are represented by increases in the *Leadership* score causing the scores of the outcome dimensions to increase through *Leadership's* influence on the mediating system dimensions in between.

The instrument has been validated empirically by several researchers including Badri *et al.* (2006) and Winn and Cameron (1998) using data in the context of higher education. Empirical research investigating the nature and strength of the assumed causal relationships among the quality dimensions within this instrument in primary and secondary education has been rare (e.g. Olson, 2009) but will be canvassed in this research in assessing the current quality climate in schools. Hence the seven

quality dimensions of the Baldrige framework will be used as a basis for the analysis for the quantitative data, obtained empirically in this study, in Chapter 4.



**Figure 2.2 Relationships between the dimensions in the 1992-1996 Baldrige framework for education** (quoted in Olson, 2009, adapted)

In the next section, I discuss several major cultures in quality management, namely *quality control*, *quality assurance* and *TQM*, that have emerged developmentally in organisational life over the last few decades, and I demonstrate how they have been used in the education sector. I also provide an overview of the contribution of prominent TQM pioneers. An historical perspective is important as it indicates how TQM originated and developed; it is also an indication that its effectiveness in the business sector prompted its adaptation in education (Sallis, 2002).

## 2.4 Historical development of quality management in education

Through the 1970s, most U.S. organisations were characterised by a quality culture centred on *quality control* or error detection (Cameron & Whetten, 1996). The basic agenda of quality control is the detection and elimination of products or services that



do not match the product or service specification after it has been produced or delivered (Fidler, 2002; Wadsworth, Stephens & Godfrey, 2002). In a school context, this conventional concept of quality control might be reflected by an emphasis on outcomes and final results, a reliance on tests and final exams to assess individual and school performance, and a focus on the essential needs of those being served and minimum standards in the education process. Individual and school improvement opportunities are provided on the basis of specified need or requirement. As in the industrial context, this mechanism of quality control is expensive, wasteful and conservative.

The 1980s saw the transition to an error prevention culture, or an avoidance of making mistakes instead of correcting them after-the-fact. This alternative form of ensuring quality is *quality assurance* (Greenwood & Gaunt, 1994; Sallis, 2002). Quality assurance entails the determination and publication of standards, appropriate methods and quality requirements by an expert body, accompanied by a process of inspection or evaluation that examines the extent to which practice meets the standards (Hoy, Bayne-Jardine & Wood, 2000). In education, quality assurance might be reflected by a greater emphasis on excellence in the learning environment, educational experiences and learning outcomes, ensuring that the education offered is of the highest possible standard and driven by individual, professional and social demands (Githua, 2004). The pursuit of quality and excellence in all activities becomes a way of life for the school leader and all staff members. Emphasis is placed on designing processes and systems, both in the classroom and in support functions so that the possibility of mistakes and aberrations for excellence are reduced. These may include selective entrance criteria for students, stringent staff recruitment procedures, performance related funding, tools for evaluation, and peer review, for example (Githua, 2004).

The determination of standards and quality requirements, and the processes of inspection and evaluation are carried out, for example, by the Office for Standards in Education (OFSTED) in the UK and the Private Secondary Schools Authority (PSSA) in Mauritius. As far as teacher appraisal is concerned, this means that a panel of experts on teaching might develop evaluation instruments that seek to enumerate the characteristics of effective teachers. In the UK, OFSTED inspectors are selected on their ability to undertake a careful observation of teaching and schooling in order

to decide whether or not appropriate standards of teaching and education are being met. They rely to a large extent on their 'expert' judgement. As another example, students from different schools sit the same examination set by a regional, national or international board. The idea is that students will have an equal opportunity of succeeding in the examination and that the results will reflect standards set by the examining authority for conformance to their expectations. A curriculum panel sets the examination and designs marking schemes. Results are seen to reflect an appropriate statement about quality achievements by the student on an 'objective' set of criteria, which are not influenced by local conditions. This quality assurance system still persists (e.g. Smyth, 2006).

A third quality culture, Total Quality Management (TQM), emerged during the late 1980s and 1990s. TQM can be viewed as a logical extension of the quality assurance approach and it centres on creative quality and continuous improvement (Dale, 2003; Pycraft, Singh & Phihlela, 2000). This culture couples continuous improvement (small, incremental changes) with innovation (large, breakthrough changes), so that current standards of performance are always improving (Bonstingl, 2001; Sallis, 2002). The emphasis is on developing a 'quality culture' among all employees and on pursuing optimum benefits for customers, or, in schools, students, parents and, ultimately, the community. TQM also anticipates and accommodates the changing needs and wants of customers, and so changes the products or services accordingly. Hence, unlike quality control and quality assurance, TQM is a dynamic concept and it does not accept any definition of quality as final although the emphasis is on the 'customer'-driven or, in schools, stakeholder-driven notion of quality. Its effort is to continually define new heights in quality and achieve them (Mukhopadhyay, 2005).

In the subsequent sections of this chapter, I discuss how TQM has contributed to current education theory. For now, it suffices to note that, in education, a TQM culture might be reflected by a focus on producing peak experiences and defining events for both those being served (e.g. students) and those delivering the service (e.g. teachers and school leaders). In TQM, improvement, in addition to achieving excellence, becomes a way of life and is associated with every activity pursued by the institution (Bonstingl, 2001; Sallis, 2002). Individual and institutional improvement is continuous and focused on future developmental opportunities. An example of 'customer'-driven quality in schools is when a Student Representative

Council suggests a major timetable change, which involves changing the structure of the school day. In reacting positively to the proposal, the school responds to the requirements and expectations of its students to change its working practices.

Sallis (2002) depicts the evolution of quality management from inspection to quality control (for detection) to quality assurance (for prevention) to TQM (for continuous improvement). Similarly, Dale (2003) reviewed quality control, quality assurance and TQM, preceded by quality inspection in a hierarchical model of quality management (see Table 2.1).

<i>Quality management approach</i>	<i>Activities</i>
Total quality management	Involves all stakeholders Aims for continuous improvement Concerns products and processes Responsibility with all staff Delivered through teamwork
Quality assurance	Use of statistical process control Emphasis on prevention Publication of standards External accreditation Delegated involvement Audit of quality schemes Cause-and-effect analysis
Quality control	Concerned with product testing Responsibility with supervisors Limited quality criteria Some self-inspection Paper-based system
Inspection	Post-production review Reworking Rejection Control of workforce Limited to physical products

**Table 2.1 Hierarchy of quality management** (Dale, 2003, p. 21, adapted)

Interestingly, as an organisation moves from inspection to quality management so a number of significant cultural changes take place, with a growing emphasis on continuous improvement of processes developed through teamwork, personal responsibility of workers, and ‘distributed’ or ‘shared’ leadership throughout the organisation (Tait, 1997; West-Burnham, 1997).

The credit for developing the philosophy of TQM goes to two Americans, W. Edwards Deming and Joseph Juran (Deming, 1986, 2000; Juran, 1999). Deming was

one of the world's most renowned advocates of quality and is widely credited as the father of the Japanese industrial revival and worldwide economic success after World War II (Crawford & Shutler, 1999). In 1986, Deming published his book *Out of the Crisis* in which he spelled out his famous '14 points for management' – the key actions he believed that people in a leadership role must take to ensure quality, productivity, and success (Dale, 2003; Evans & Dean, 2004; Deming, 1986, 2000; Mukhopadhyay, 2005; Spigener & Angelo, 2001; West-Burnham, 1997). These points are listed in Table 2.2 below.

<b>Point 1</b>	Create constancy of purpose
<b>Point 2</b>	Adopt the new philosophy
<b>Point 3</b>	Cease dependence on mass inspection
<b>Point 4</b>	End the practice of awarding business based on price tag alone
<b>Point 5</b>	Improve constantly and forever the system of production and service
<b>Point 6</b>	Institute on-the-job training
<b>Point 7</b>	Institute leadership
<b>Point 8</b>	Drive out fear and build trust
<b>Point 9</b>	Break down barriers between departments
<b>Point 10</b>	Eliminate slogans and exhortations for the workforce
<b>Point 11</b>	Eliminate arbitrary numerical goals and quotas
<b>Point 12</b>	Remove barriers to pride of workmanship
<b>Point 13</b>	Institute a vigorous programme of education and self-development
<b>Point 14</b>	Take action to accomplish the transformation

**Table 2.2 Deming's 14 points for management**  
(Dale, 2003; Evans & Dean, 2004)

Deming offered his 14 points as an initiation for the transformation of American industries, based on his experience on promoting the reform of the Japanese managerial culture after the Second World War. Although TQM was originally intended for the industry sector, Deming argued that his management principles could equally be applied to the service sector, including education (Crawford & Shutler, 1999; Dale, 2003). Many authors including Bonstingl (2001) and Mukhopadhyay (2005) have interpreted how Deming's 14 points might be applied by those leading schools or education system reforms to achieve continual quality improvement and to suit the different purposes of education. Many terms used by Deming, which are seemingly 'alien' in an education context, have been demonstrated to support distributed notions of leadership and democratic modus

operandi, where teacher leadership, for example, is equally valorised (Mukhopadhyay, 2005; Murgatroyd & Morgan, 1993).

Other authentic sources of the concept or principles of TQM in the literature are the cardinal principles of TQM advocated by Juran (Table 2.3) and Crosby (Table 2.4).

<b>Step 1</b>	Create awareness of the need and opportunity for improvement
<b>Step 2</b>	Set explicit goals for improvement
<b>Step 3</b>	Create an organisational structure to drive the improvement process
<b>Step 4</b>	Provide appropriate training
<b>Step 5</b>	Adopt a project approach to problem solving
<b>Step 6</b>	Identify and report progress
<b>Step 7</b>	Recognise and reinforce success
<b>Step 8</b>	Communicate results
<b>Step 9</b>	Keep records of change
<b>Step 10</b>	Build an annual improvement cycle into all company processes

**Table 2.3 Juran’s 10 steps to quality management**  
(Dale, 2003; Mukhopadhyay, 2005; West-Burnham, 1997)

<b>Step 1</b>	Establish full management commitment to the quality programme
<b>Step 2</b>	Set up a quality team to drive the programme
<b>Step 3</b>	Introduce quality measurement procedures
<b>Step 4</b>	Define and apply the principle of the cost of quality
<b>Step 5</b>	Institute a quality awareness programme
<b>Step 6</b>	Introduce corrective action procedures
<b>Step 7</b>	Plan for the implementation of a zero-defect system
<b>Step 8</b>	Implement supervisor training
<b>Step 9</b>	Announce a zero-defects day to launch the process
<b>Step 10</b>	Set goals to bring about action
<b>Step 11</b>	Set up an employee-management communication systems
<b>Step 12</b>	Recognise those who have actively participated
<b>Step 13</b>	Set up quality councils to sustain the process
<b>Step 14</b>	Do it all over again

**Table 2.4 Crosby’s 14 steps to quality improvement**  
(Dale, 2003; Mukhopadhyay, 2005; West-Burnham, 1997)

Deming, Juran and Crosby are three of the most important ‘quality’ pioneers. It has to be emphasised that the points they prescribe are not ‘lock-step’, but may be more reflective, contemporaneous and happen simultaneously in practice. Other outstanding contributors to the TQM philosophy are Armand V. Feigenbaum and Kaoru Ishikawa (Bonstingl, 2001; Djerdjour & Patel, 2000). Although it is not simple to compose an expose of the differences between the literary work of these

quality theorists and become overburdened by the sheer amount of recommendation and exhortation, all were practical advocates of their theories and, more importantly, they have made them work (West-Burnham, 1997). However, their approaches have limitations in education more so as they were developed in an industrial context, although it is to be noted that Deming has been the most influential in the education sector (West-Burnham, 1997). Nevertheless, their contribution to the quality movement has been so great that it is difficult to explore quality issues and adapt them to a school context without recourse to their thinking (Sallis, 2002).

A critical examination of the cardinal principles of TQM as enunciated by Deming (Table 2.2), Juran (Table 2.3) and Crosby (Table 2.4) indicates much common ground between their approaches and, in particular, a marked shift in emphasis in quality management from product to people. The strongest emphases are on 'shared' or 'distributed' leadership commitment and support of formal leaders in the quest for quality, constancy of purpose, quality consciousness, empowerment and continuous improvement as a way of organisational life (Mukhopadhyay, 2005), which are now commonly accepted bases for educational leadership. Such ideas are reinforced by Leithwood *et al.* (2006) who contend that school leadership should be based on flexibility, persistent optimism, motivating attitudes and dispositions, commitment and an understanding of one's actions on the daily lives of others.

There are also certain features of quality management that are associated with particular theorists. For example, Deming provides manufacturers with methods to measure the variation in a production process so as to determine the causes of poor quality. Juran emphasises setting specific annual goals and establishing teams to work on them. The theories of 'zero defects' and 'quality is free' are linked to Crosby. Total Quality Control (TQC) theory, aimed at managing by applying statistical and engineering methods throughout the organisation, is associated with Feigenbaum. The concepts of quality circles and Company-wide Quality Control (CWQC) are those of Ishikawa. Most of the quality management principles originated from these theorists, and they can be safely credited with creating the vocabulary of TQM (Djerdjour & Patel, 2000).

Importantly, all of the major TQM proponents emphasise that leadership, while comprising formal arrangements, is a circumjacent phenomenon that exists

throughout the organisation, at all levels, with the key role of leaders (formal and informal) being to develop strategies, mobilise teams and use tools that will facilitate the realisation of a collective vision and wisdom as an element of culture change in the pursuit of quality (Crosby, 1979, 1984; Deming, 1986, 2000; Feigenbaum, 1983; Ishikawa, 1984; Juran, 1999). It is to be noted, from a critical perspective, that an element of leadership that is often overlooked in much leadership literature is raising critical questions, especially in relation to morality, ethicality and social justice.

In the next section, I examine the important elements of TQM and discuss them at length in a school context.

## **2.5 Application of TQM principles in education**

In Chapter 1 (section 1.3), I raised serious concerns about the poor quality of schools in Mauritius and about the imperative to develop effective leadership through the whole school system as a key to the successful implementation of large-scale educational reforms. I suggested that, for the most part, the school curriculum in the Mauritian educational system is failing many students and the common bureaucratic organisational structures in schools are not attuned to emerging global economic and social structures. Conversely, I claimed that TQM moves far beyond the bureaucratic leadership paradigm, so common in Mauritian schools, by endorsing role players' involvement and empowerment in decision-making, intrinsic motivation and systems theory. Hence the interest of Mauritian education officials in TQM as a leadership approach has to do with the quest for Mauritian schools to restructure and to change for survival. My aim in this study is to see if those who currently lead schools endorse and use TQM's basic tenets or believe such tenets may be usefully applied to bring improvements in schools. Besides, references are made to TQM-compatible principles in the Mauritian Ministry of Education policies and plans for improvement (MEHR, 2006b; MESR, 2001a, 2001b, 2003).

The literature reveals that there is a growing interest in the application of TQM-like tenets in the education sector. The Baldrige Award, for instance, has set a national standard for quality in the USA and many organisations, including service organisations like schools, use the criteria to pursue ever-higher quality in systems and processes (Swift, Ross & Omachonu, 1998). In general, the introduction of TQM

in schools has been perceived as a desirable initiative for the quality improvement process, even though there have been critics and some attempts to implement the process in schools have failed (Blankstein, 2004; George & Weimerskirch, 1998). (In section 2.9, I deal at length with the critiques of TQM in a school context.)

Advocates of the TQM philosophy in schools argue that there are clear parallels between organisational quality culture in industry and schools and that TQM principles are relevant to organisational learning as well as the learning processes in classrooms (Murgatroyd, 1993; Berry, 1997). Business and education also realise that there are certain commonalities between them such as financial administration, programme enhancement, human resource recruitment, development and management (Van der Linde, 2001). Indeed, schools can learn a great deal about organisational quality from other kinds of organisations and that inter-organisational collaboration should be encouraged undertakings (Berry, 1997; Bottery, 1994).

There has been considerable work on testing the concept and practice of TQM in educational settings, and its successful implementation has been widely reported. In an experiment, Hansen and Jackson (1996) applied TQM, which they called *total quality improvement* (TQI), in the classroom. They applied the principles of customer focus (students), team process (student involvement) and continuous improvement, and concluded:

The TQI approach changed the role of the teacher. ... the instructor becomes a manager of resources rather than an oracle on the podium. ... The second lesson is how scarce, and hence how valuable, the time of students is. ... The scarcest resource to manage was students' time and goodwill. (Hansen & Jackson, 1996, p. 215)

Gartner (1993) also reported his applications of Deming's methods in the classroom. He concluded:

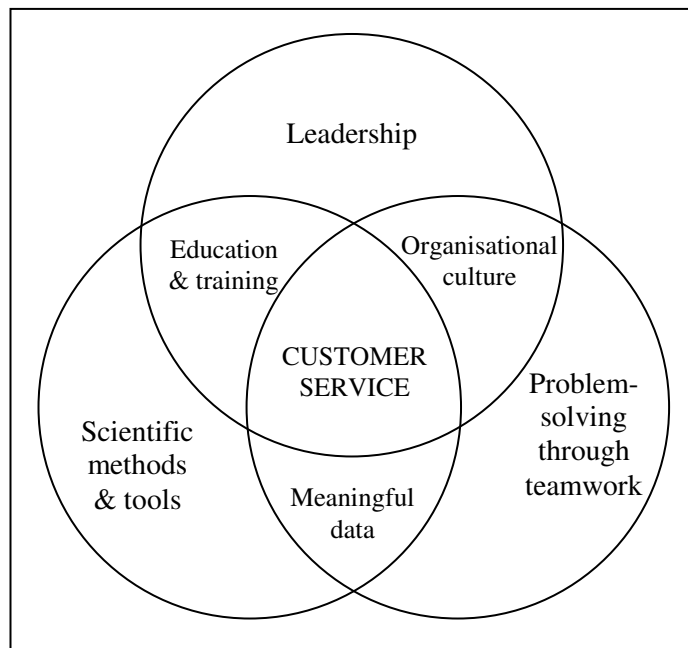
The general principles and methods of quality control as outlined by Deming seem to work. Students can be treated like workers, and systems can be put in place to enable them to generate high levels of outputs with high level of quality. The workplace seems to be more enjoyable for both students and faculty. The classroom is less neurotic; students know how to act, and they know that these actions will be rewarded. (Gartner, 1993, p. 155)



However, that students may be treated as ‘workers’ in the classroom is now out-of-date, politically incorrect terminology although the essence of Gartner’s idea may still apply. More recently, Bay and Daniel (2001) appropriately present students as ‘collaborative partners’ and quality is then rather considered as a negotiated phenomenon based on all stakeholders’ expectations and aspirations. By and large, TQM in education is seen to provide a structured and systematic delivery system which has inter alia resulted in an increase in students’ academic performance, self-esteem, motivation and self-confidence, a decrease in student drop-out rate and disciplinary problems, enhanced work ethics, staff morale and motivation, less conflict between staff members, and a decrease in costs due to less need to redo tasks (Bonstingl, 2001; Blankstein, 2004; Steyn, 2000; Tribus, 1996; Weller & McElwee, 1997).

Importantly, the implementation of TQM in schools is reported to have led to tremendous improvement regarding team-building and stakeholder focus because of role players’ involvement, such as parental involvement in the school’s codes of student behaviour, student participation as junior partners in governance, teachers developing the curriculum and services to suit students’ needs, the private sector funding for the provision of services (Koch, 2003; Van der Linde, 2001). Role players are motivated and committed to realising educational goals through shared leadership practices (Griffith, 2001). Consequently, there is clear evidence of culture change, which is essential for continuous improvement of the school’s quality of work culture (Spencer-Matthews, 2001).

According to De Jager and Nieuwenhuis (2005, p. 254), the key principles of TQM in education are “leadership, scientific methods and tools and problem-solving through teamwork. These three specific features are linked to form an integrated system that contributes to the organisational climate, education and training and provision of meaningful data with customer service at the centre of it all” (see Figure 2.3).

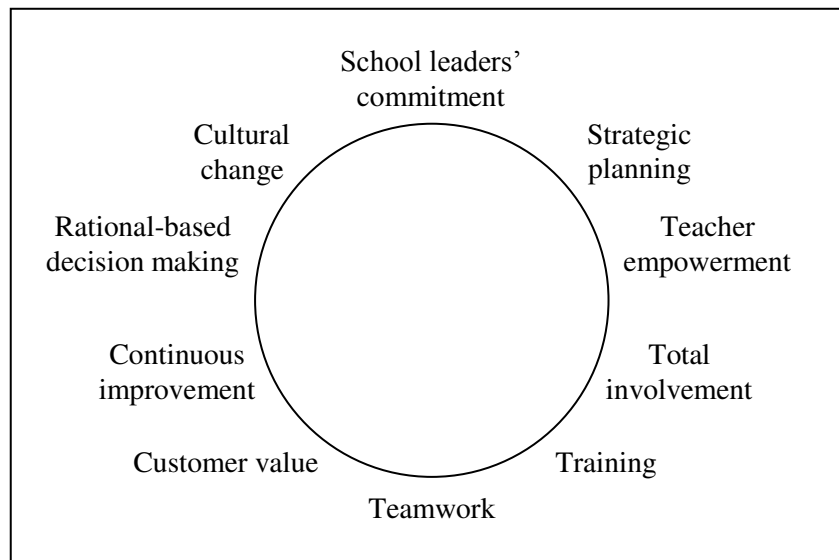


**Figure 2.3 Key principles of TQM in education**  
(De Jager & Nieuwenhuis, 2005, p. 254)

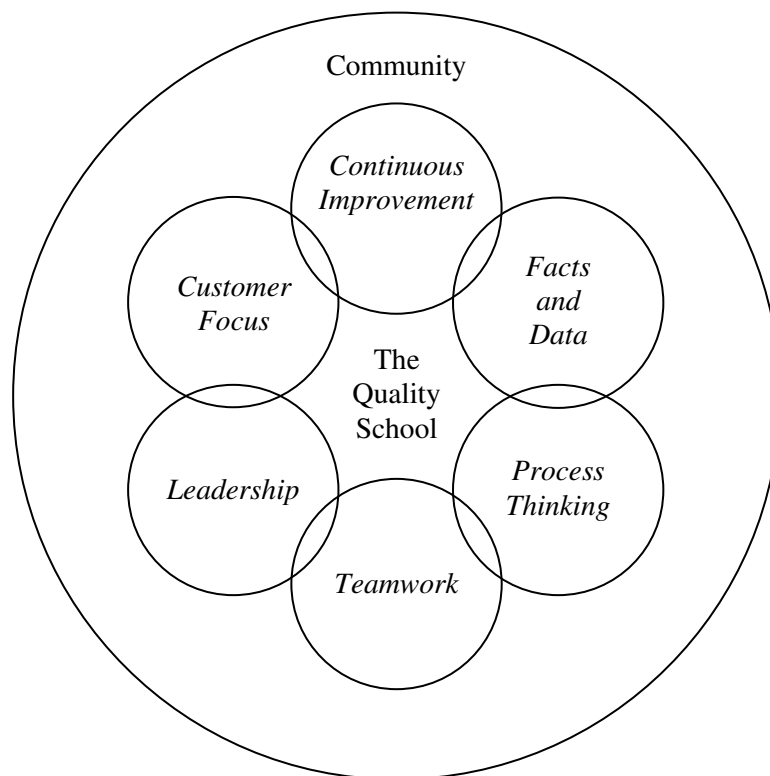
Gore (cited in Berry, 1997) argues that TQM is highly applicable to the school context since the central concept of TQM, continuous improvement, is fundamental to education. Gore (in Berry, 1997, p. 13) goes on to suggest that, although schools need to develop their own approach, the following aspects of TQM are relevant for school improvement:

- The role of leadership;
- The articulation and development of a vision and the development of culture;
- Management by fact;
- A focus on team building and processes that cross functional boundaries;
- Management and enhancement of human resources;
- Benchmarking;
- Cycle time reduction; and
- Customer focus, satisfaction and measurement.

Other authors, for example, Daugherty (1996) (see Figure 2.4) and Irwin (1993) (see Figure 2.5) are consistent with De Jager and Nieuwenhuis (2005) and Gore (in Berry, 1997) about the elements of TQM that are relevant to schools.



**Figure 2.4 Precepts of TQM** (Daugherty, 1996, p. 84, adapted)



**Figure 2.5 TQM in education** (Irwin, 1993, p. 15)

In a school setting, total quality means that every function and every level in the organisation is involved in the process, including school leadership, school operations, the classroom, the curriculum, and is dedicated to the goal of achieving the highest standards of performance as demanded or expected by the customers or stakeholders (Murgatroyd & Morgan, 1993; Steyn, 1995). The TQM process affects

all who work in the school as well as all activities undertaken in the name of the school (Steyn, 1996), and this should be a continuous improvement of the total system (Lewis & Smith, 2006; Murgatroyd & Morgan, 1993).

It is now possible to present a summary of the principles of TQM from the literature that appears to be most pertinent to schools. These are:

- (1) Leadership;
- (2) Focus on the customer/stakeholder;
- (3) Commitment to change and continuous improvement;
- (4) Decision-making based on data;
- (5) Professional learning;
- (6) Teamwork;
- (7) Focus on the system; and
- (8) Cultural change.

I shall next discuss each of these key TQM principles in education in some detail. Because of the ‘integrated system’ they form (De Jager & Nieuwenhuis, 2005) and their comprehensiveness in explaining the TQM philosophy, these TQM tenets will be used as the organising framework and headings so as to highlight themes in the analysis of the qualitative empirical data in Chapter 5.

### **2.5.1 Leadership**

Quality management stresses the need for visible commitment and support from formal leaders creating trusting teams to embed TQM principles and practices in the culture of the organisation (Deming, 1986, 2000; González & Guillén, 2002; Perles, 2002). Correspondingly, the failure of quality improvement efforts in schools is often perceived to be caused by ineffective leadership including conceptions of school leadership that fail to engage the talents of staff (Bonstingl, 2001; Leithwood *et al.*, 2006). Hence, the effective implementation and sustainability of TQM in schools depends on the support and inspiration of principals.

Principals are expected to promote teamwork to guide the school community in its continuous development towards the provision of quality education (Bernauer, 2002; Detert *et al.*, 2000). This implies that principals support teachers to be leaders,

accepting responsibilities that are consistent with their own values and the school's goals (Yu, Leithwood & Jantzi, 2002). A further implication is that principals with their staff have to educate themselves about quality leadership and model quality practices in their actions and decisions. The latter implication is especially relevant to the Mauritian context where the government itself acknowledges the non-existence of any professional learning programme in school leadership and management for prospective principals prior to and also after selection (MESR, 2004). Hence it would be interesting to investigate whether current Mauritian school leaders are already using TQM-compatible principles in their day-to-day work (given current policy rhetoric from Mauritian education authorities), how they gauge their effectiveness, and, if they don't use them, whether they think these might be useful.

The challenge to leadership in a TQM context is that of adopting a new philosophy (Table 2.2, Deming's Point 2) and all other associated processes and systems that ensure generating a quality culture. According to Deming (1986, p. 54), the quality approach to management requires "that managers be leaders." Indeed, since the mid-1980s, educational researchers and authors started "to canonise leadership and demonise management" (Gronn, 2003, p. 269). However, some leading scholars like Bush and Middlewood (2005) and Leithwood *et al.* (2004) believe that good leaders also have to be good managers.

### ***Transformational leadership***

A major influence on recent thinking about leadership in education was Burns' (1978) concept of *transformational leadership* (Gurr, 2002; Owens, 2001). Transformational leadership looks for potential motives in members of staff, seeks to satisfy higher needs, and engages the 'full person' in a commitment to change, resulting in a relationship in which other staff are fulfilled and inspired to become leaders (Owens, 2001). Transformational leaders foster development of vision and goals aimed at the continuous growth and development of the school (Mukhopadhyay, 2005). Hence, in a TQM context, the emphasis is on transformational leadership, which has to continuously evolve and unfold to its full potential (Frazier, 1997). Transformational leadership is indeed closely related to how successful principals perceive their own leadership roles (Gurr, 2002).

The most remarkable feature of transformational leadership is that of creating and mentoring leadership at all levels in the organisation by trusting and nurturing leadership qualities in others to accomplish goals (Gurr, 2008; Leithwood & Riehl, 2003; Leithwood *et al.*, 2006; Owens, 2001). Indeed, Leithwood and Riehl (2003, p. 9) succinctly define leadership as “those persons, occupying various roles in the school, who work with others to provide direction and who exert influence on persons and things in order to achieve the school’s goals.” Similarly, Bush and Glover (2003, p. 8) describe leadership as “a process of influence leading to the achievement of goals”. The transformational leader engages in trusting and developing the leadership capabilities of colleagues who therefore acquire the confidence to lead the ‘sub-systems’ of the school, e.g. departments, offices, the gymnasium and sports division, etc. School leaders need to engage themselves in a leadership process through which the minds and talents of people at all levels are applied fully and creatively to the school’s continuous improvement.

This echoes Burns’ (1978) seminal distinction between leadership that is *transactional* and that which is *transformational*. Transactional leadership occurs when the leader takes the initiative to make contact with others for the purpose of an exchange of something valued; that is, “leaders approach followers with an eye towards exchanging” (Burns, p. 4). On the other hand,

[Transformational leadership] occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality [and it] ultimately becomes moral in that it raises the level of human conduct and ethical aspiration of both leader and led, and thus it has a transforming effect on both. (Burns, 1978, p. 20)

Hence, transformational leadership is not merely based on power and compliance of staff. It is a relationship in which the needs, aspirations and values of both leaders and the led are satisfied (Nemec, 2006). It is to be noted, here, that reference to the inherent conservatism in the notions of the ‘leader’ and the ‘led’ is excluded.

Whilst transformational leadership has the potential to develop higher levels of motivation and commitment amongst stakeholders, it has also been criticised as being manipulative in the sense of a vehicle for control over teachers (Chirichello, 1999), and for having the potential to become ‘despotic’ because of its strong, heroic

and charismatic features (Allix, 2000). To overcome such criticisms, transformational leadership evolved into discussions about *distributed*, *shared* or *collective* notions of leadership (Mukhopadhyay, 2005), including an emphasis on *teacher leadership* (Crowther *et al.*, 2002a, 2002b; Starr & Oakley, 2008). Transformational leadership is now a term mostly used in education with particular reference being given to these newer terms, and therefore increasing attention is being devoted to an important shift in leadership paradigm in schools that promotes, nurtures and supports distributed leadership.

### ***Distributed leadership***

From the distributed leadership perspective, the idea of leadership moves beyond formally appointed leaders, personality traits, roles, and positions, but instead draws on the tacit knowledge, skills and merit of staff members and accounts for what the group knows and does collectively (Spillane, Halverson & Diamond, 2001; Spillane, 2006). Distributed leadership in schools works through relationships, encouraging a culture that values multiple perspectives and diversity, through structures that actively promote shared leadership arrangements and through approaches that include concertive action from spontaneous collaboration and role-sharing to formal relationships (Cunliffe, 2009; Zepke, 2007).

Distributed leadership practice requires that everyone in the school develop and share a common vision aligned with meaningful and attainable goals for student achievement. To ensure efficient and reliable outcomes that sustain themselves, collective decision-making that genuinely incorporates input and feedback from those most affected by organisational action is indispensable. This recognises the importance of participation, collaborative decision-making and teamwork to enable stakeholders to contribute to the processes of visioning and implementing rather than simply accepting the formal leader's personal vision (Bush & Glover, 2003).

An important component of distributed leadership is that of *teacher leadership*. There is now a wealth of research evidence demonstrating the substantial advantages that accrue to schools that empower teachers to effect decisions and recognise 'teachers as leaders' (Crowther *et al.*, 2002a, 2002b; Day, Harris & Hadfield, 2001; Gronn, 2000; Harris & Muijs, 2005; Wallace, 2002). It is suggested that

improvements in student outcomes are more likely when teachers are empowered in decisions related to teaching, learning and assessment (Silins & Mulford, 2002; Starr & Oakley, 2008). “Much research has demonstrated that the quality of education depends primarily on the way schools are managed, more than on the abundance of available resources, and that the capacity of schools to improve teaching and learning is strongly influenced by quality of the leadership provided by the headteacher” (De Grauwe, 2000, p. 1). Thus, within the general field of school leadership, teacher leadership has more significant effects on student achievement than principal leadership (Leithwood & Jantzi, 2000; Leithwood *et al.*, 2004; Silins & Mulford, 2002). In fact, school leadership is second only to teaching in its impact on student outcomes (Leithwood & Jantzi, 2000; Leithwood *et al.*, 2004).

Principals with vision realise that best results occur through empowering those nearest to a process to manage that process themselves. This implies that teachers should be given the professional freedom in the discharge and leadership of their duties. As Fredriksson (2004, p. 10) says:

The professional freedom of the teacher is of crucial importance in developing quality in education. Professional freedom does not mean that the teacher can do whatever he or she likes, but that the teacher, who knows the students, is the person best equipped to decide which methods to use in order to create an optimum learning situation. Professional and academic freedom is also of crucial importance in achieving teaching that is independent of any political, economic, ideological or religious influence, in order to preserve young people’s right to and democratic exercise of critical creativity.

At the same time, collaboration of teachers will contribute to the development of a positive school culture that is committed to change and the creation of better learning opportunities for all (Robinson & Carrington, 2002; Rhodes & Houghton-Hill, 2000; Wilms, 2003). Pool (2000, p. 37) regards the collaborative efforts as “synergistic elements in a creative process” aimed at the transformation and continuous improvement of learning organisations. Furthermore, collaboration integrates and improves quality and efficiency in all functions throughout the organisation (Swift, Ross & Omachonu, 1998; Kirkman & Rosen, 1999; Pool, 2000). This means heavy reliance on teams. Team members can draw upon strengths and complement each other’s knowledge and skills in providing better quality instruction. Principals, as formal leaders, also have a crucial role in creating genuinely shared leadership



partnerships with teachers by providing resources and opportunities for them to learn and grow professionally (Starr & Oakley, 2008).

Moreover, the ‘formal’ leadership role teachers can play in schools by virtue of their professional status is only one comparatively trivial aspect of their potential leadership influence. According to Harris and Muijs (2005), the ability of teachers to influence decision-making ‘informally’ through their interactions amongst themselves and with other people within the school is much more powerful. Leadership in this informal sense is a “by-product of social interaction and purposeful collaboration” (Harris & Muijs, 2005, p. 14) amongst all stakeholders. This appears to suggest that teachers say and do things, consciously or unintentionally, which are likely to cause the attitudes and behaviours of stakeholders, including themselves, in the school to change for the better, especially with reference to teaching and learning. It also means that the TQM principle of distributed leadership in schools can be enabled by effective communication of the school’s goals and the deployment of participation devices and appropriate reward systems.

Realising and maintaining this TQM principle in schools is complex because it depends not only on the school leader but also on teachers and is very much founded on trust and respect. This necessarily requires the presence of principals who generate adhesion to a vision. More than anything, teachers need to trust in the principal’s fairness and in his/her intention to preserve their interests, again highlighting the importance of the ethical dimension of school leadership.

The notion of distributed leadership in schools is not without criticisms. Although the importance of this TQM principle is acknowledged, so too is the difficulty of achieving it. It has been said that the distribution of leadership can result in a *laissez-faire* environment or even conflict (Burke, 2010; Starr, in press (a)). In other instances, whilst responsibilities have been delegated to teachers in the name of ‘distributed leadership,’ these have seldom concurred with any power to influence decision-making autonomously (Hatcher, 2004). Senior school leaders, as formal leaders, retain effective control of important decisions in schools, and this is particularly true at a strategic level where middle-level managers and other teachers

tend to have no say in matters related to the overall future direction of the school (Orchard, 2002).

Furthermore, Bush and Glover (2003) claim that distributed leadership recognises all forms of leadership and, as such, does not constitute a distinctive approach to leadership. This is in agreement with Gronn's (2008) contention that school leadership in some situations is 'hybrid', rather than truly distributed, whereby it is acknowledged that there may be "highly influential individuals working in parallel with collectivities" (Gronn, 2008, p. 152). Nonetheless, it is not difficult to see the basis of the current appeal to the idea of distributed leadership as a form of participatory democracy for certain functions only while others should be undertaken by the school's formal leader (Leithwood *et al.*, 2007). Despite its critiques, "distributed leadership is an idea whose time has come" (Gronn, 2000, p. 333).

### ***Ethical/moral leadership***

Despite criticisms of transformational leadership and distributed leadership in education, they offer "a useful platform on which to build the next dominant view of leadership, one which may, for example, incorporate a stronger focus on values and moral leadership" (Gurr, 2002, p. 85). In this context, Sergiovanni (2006) defines *moral leadership* as the ability to build connections that transform schools from ordinary organisations to communities with a commitment to a shared purpose. To that extent, the result of transformational leadership is a relationship of mutual responsibility and accountability "that converts followers into leaders and may convert leaders into moral agents" (Burns, 1978, p. 4). This means that principals should be centrally concerned with leadership practices that are ethical and moral by the very nature of the work they do with deciding what is significant, what is right and what is worthwhile (Duignan, 2005, 2007; Fullan, 2003; Sergiovanni, 2006). An ethic of care needs to be an integral part of what happens in schools alongside an ethic of social justice (Noddings, 2002).

This ethical dimension of leadership, often silenced in the literature, refers to the rightness of decisions and goodness of intentions of the leader in his/her relationship with others, and emphasises the moral correctness of his/her behaviours and actions. The leader's influence is largely anchored on his/her moral values or virtues such as

respect, fairness, honesty, integrity, trustworthiness, responsibility and inclusion (Nemec, 2006). Hence school leadership involves an element of social justice (Duignan, 2005) and the use of such relational values is central to people's self-concept and their sense of self and informs the way they interact with each other, and impact positively on personal, relational and collective well-being (Nemec, 2006). This includes a higher sense of autonomy and control at work, improved mental health and higher levels of motivation towards work (Goleman, Boyatzis & McKee, 2003).

Correspondingly, Ellyard (2001) talks about the need for school leaders to have 'heart power', referring to the qualities of confidence, courage, commitment, consideration, courtesy, compassion, conciliatory skills and communication. Ellyard (2001) claims that such qualities come from the heart and supersede technical abilities, and enable the principal to build trust as a foundation and works towards achieving school goals relationally via a focus on people. Thus current educational leadership thinking is very much driven by morality and ethics, in that implicit in the relationship between the school leader and other staff is trust in one person's power over another and the way in which that power will be used and the interests it will serve (Hargreaves & Fink, 2006; Nemec, 2006).

### ***Starratt's ethical school leadership framework***

In his atypical but timely book, *Ethical Leadership*, Robert J. Starratt (2004) implicitly asserts that school leaders should transcend the technical dimension of their work so as to have a greater positive impact in the delivery and performance of learning. He urges leaders to become ethical leaders who recognise the learning process as a profoundly moral activity that engages the full humanity of the school community. He goes on to emphasise that educational leadership requires a moral commitment to high quality learning for all students, based on three particularly important ethical virtues: 'personal' and 'professional' *authenticity*, 'preventative' and 'proactive' *responsibility*, and an 'affirming', 'critical' and 'enabling' *presence* to stakeholders and the work involved in teaching and learning. These ethical leadership virtues are "needed to infuse and energize the work of schools and hence the work of leaders in schools" (Starratt, 2004, p. 9). They act as standards for

leaders as they design opportunities and environments that nurture and sustain teacher capacity (Bredeson, 2005).

The ethic of authenticity challenges school leaders to “bring their deepest principles, beliefs, values and convictions to their work” (Duignan, 2007, p. 5), and to act in truth and integrity in all their interactions as humans “with the good of others in view” (Starratt, 2004, p. 71). This places an obligation on school leaders to promote a reciprocal relationship with teachers in which they express their own authentic selves while simultaneously respecting and affirming how teachers construct authenticity in their lives and professional work (Bredeson, 2005). As Duignan (2007) claims, authentic school leaders focus overwhelmingly on the ‘core people’ (teachers and students) to achieve the ‘core business’ of schooling (authentic teaching and learning), based on and whilst embracing the ‘core values’ (such as respect for the dignity and worth of others). The ethic of authenticity places an obligation on school leaders to think, above all, of teachers as human beings and appreciate and affirm their uniqueness and needs while focused on building individual and collective capacity through professional development (Bredeson, 2005).

Starratt (2004, p. 49) suggests that “[e]ducational leaders must be morally responsible not only in preventing and alleviating harm but also in a proactive sense of who the leader is, what the leader is responsible as, whom the leader is responsible to, and what the leader is responsible for.” The first general orientation to the virtue of responsibility (‘ex post’ responsibility) is that school leaders should be held responsible for past actions, decisions, and their outcomes. The second orientation (‘ex ante’ responsibility) is proactive meaning that a school leader should assume a moral responsibility to all stakeholders for thinking about, planning, and taking actions as human beings, professional educators, community members and citizens. Thus, the ethic of responsibility challenges school leaders and teachers to act in ways that acknowledge their personal accountability for their actions, and to create and promote conditions in their schools for authentic learning experiences for students as well as listening to and caring for people making the decisions relating to this learning (Duignan & Bezzina, 2006).

Among the three ethical components of Starratt's framework for educational leaders, it is the last, presence, which empowers principals to be and act with genuine authenticity and responsibility, and tightly links them to the school's stakeholders in the pursuit of quality. Starratt (2004, p. 105) discloses the 'symbiotic' relationships between the three ethics when he says:

[T]o be authentic, I have to take responsibility for the self I choose to be. To be responsible, I have to choose to be authentic. To be authentic and responsible, I have to be present to my authentic self and be present to the circumstances and situations so that I can connect my authentic self to the roles I have chosen to play.

Duignan (2007, p. 6) conveys Starratt's sentiments more plainly in the following terms:

Authentic educative leaders couldn't live with themselves personally or professionally (ethic of authenticity) unless they took responsibility for the quality of students' learning by naming and challenging inauthentic learning (ethic of responsibility), then engaging meaningfully with others and helping them create the conditions for authentic learning (ethic of presence).

Hence school leaders' presence triggers, contributes and enhances a deep sense of their own authenticity and responsibility, and those of others, especially teachers, students and parents, through their active engagement in deep and meaningful professional activities, based on ongoing processes of self-reflection and communication with others.

### ***Leadership sustainability***

Perhaps reflecting growing environmental concerns, there is now a burgeoning interest by prominent writers on an essential, but often neglected, aspect of educational leadership: sustainability. Davies (2007, p. 11) defines *sustainable leadership* as "the key factors that underpin the longer-term development of the school. It builds a leadership culture based on moral purpose which provides success that is accessible to all," thereby echoing others writers' view that school leadership is very much about values and ethics (e.g., Duignan, 2005; Fullan, 2003; Sergiovanni, 2006).

Hargreaves and Fink (2004, 2006) conceive seven interrelated principles of sustainable leadership, characterised by: (1) *depth* of learning and real achievement rather than superficially tested performance; (2) *length* of impact in the long run, beyond individual leaders, through effectively managed succession; (3) *breadth* of influence, where leadership becomes a distributed or shared responsibility; (4) *justice* in ensuring that leadership actions do no harm to and actively benefit students and other schools; (5) *diversity* that replaces standardisation and alignment with diversity and cohesion; (6) *resourcefulness* that conserves and renews leaders' energy and doesn't burn them out; and (7) *conservation* that honours and builds on the best of the past to construct an even better future. Some of the principles covered in Hargreaves and Fink's (2004, 2006) framework have been picked up earlier but are included here for the sake of completeness. In essence, the authors' compelling framework of seven principles implies that no efforts at ongoing change or continuous improvement can be expected to persist in a school, unless leadership is implemented in ways that are enduring. The contemporary challenge of leadership is to distribute and develop leadership across the organisation, but also to articulate and develop it over time (Hopkins, 2001).

To conclude this section, leadership commitment and support are among the key factors for successfully implementing TQM in organisations, including schools. From this perspective, principals should be the driving force in employing TQM in schools with their staff in a shared, teamwork sense. They should develop and communicate vision, optimism and purpose with their staff (Bonstingl, 2001; Sallis, 2002). They should mentor leadership in others by empowering staff and having a high level of tolerance for risk-taking, ambiguity, patience and integrity. Quality becomes an integral part of a school once the thinking and visioning of staff and the culture of the school as a whole organisation are aligned. The principal is entrusted with the responsibility of fully adopting the total quality philosophy throughout the organisation, empowering staff to continuously improve by removing barriers to their natural joy and pride of 'workmanship' (Deming, 1986, 2000). This means that quality has to be managed, it just does not happen by chance and it has to be managed at all levels of the organisation by everyone. School leaders also create an atmosphere of trust that enables commitment to a collective vision which in turn brings about deep, significant changes. By explicitly considering the ethical

dimension of school leadership, principals are able to influence a school's culture strongly and, consequently, may enable the deployment of TQM tenets in schools in deep and sustainable ways.

### **2.5.2 Focus on the customer/stakeholder**

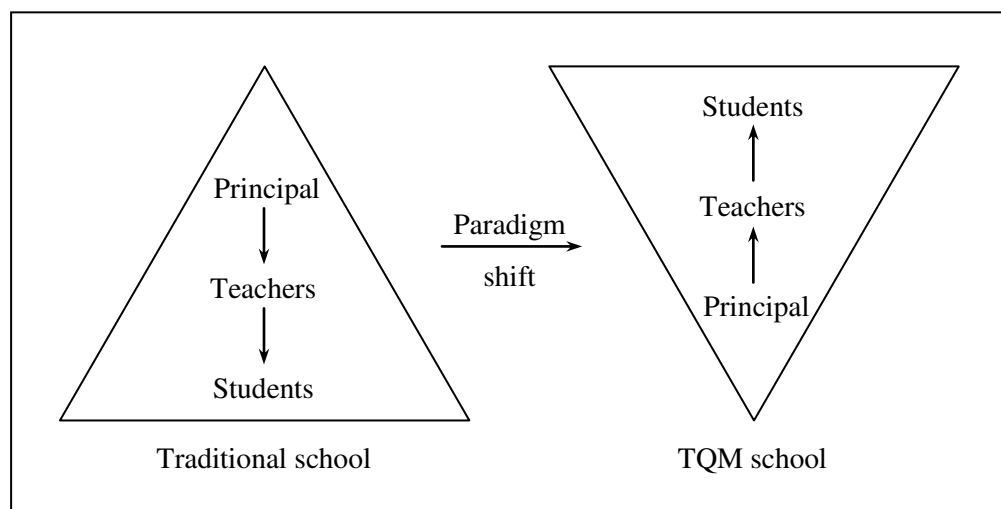
Customer satisfaction is an essential institutional goal and is considered to be the hallmark of an organisation's effectiveness (Oakland & Oakland, 1998). A major aim of a customer-focused organisation is to determine who the customer is and seeking from the customer the characteristics of quality required to meet or exceed the customer's needs (Weller & McElwee, 1997; Mukhopadhyay, 2005). In so doing, not only is customer satisfaction produced but also customer loyalty is obtained (Lewis & Smith, 2006). In education, however, the word 'customer' is a controversial, even offensive, term which is often perceived as a useless market analogy, carrying the connotation of a commercial transaction of goods or services in exchange of money between two individuals or two groups (Mukhopadhyay, 2005), and the term 'stakeholder' is therefore preferred. (I provide a fuller account of the critiques of the customer concept in schools in section 2.9.)

Stakeholders' needs and expectations are usually varied and constantly changing, and sometimes they are not even clear or explicitly known (Daresh & Playko, 1995). This implies that even the best planned lesson or most carefully designed course or any other educational service may not satisfy every student, parent or governor. Therefore, fulfilling the principle of stakeholder satisfaction involves making risky decisions and requires a shared vision and a strong commitment by all role players in the school. Furthermore, stakeholder satisfaction is a constant challenge that necessitates sustained efforts and a climate of trust (in the ethical sense) without which the shared vision will be lost with time.

Satisfying students as primary stakeholders also means treating them in humane and caring ways. Therefore if a school wishes that teachers genuinely care for students and do their best to serve them, the teachers must themselves feel treated in a similar way and perceive that their school is concerned about them. Serving students and their parents sometimes involves heroic acts on the part of teachers and support staff that are not always noticed or acknowledged, let alone rewarded. School leaders

cannot expect such conduct if stakeholders are not convinced that they will all reap the fruits of their efforts in the future (Quinn, 2005). Hence the perception of rightness and goodness of leadership intentions and actions in the sense of cooperation for the *common good* of all students (Bryk, Lee & Holland, 1993) and the school community at large becomes critically important.

To create a learning organisation dedicated to quality improvement requires the school to think from the experience of the student backward to organisational design and structure (Gandolfi, 2006; Senge *et al.*, 2000). Rather than see structure as a formalisation of control systems, structure should facilitate responsiveness to student needs in the student's own terms. On this basis, Murgatroyd and Morgan (1993) and Mukhopadhyay (2005), advocate an inverted triangle as a scheme to represent diagrammatically the paradigm shift in focus from school leaders in the traditional system to the students in the TQM culture (see Figure 2.6).



**Figure 2.6 Paradigm shift in focus from principal to students**  
(Mukhopadhyay, 2005, p. 66, adapted)

In the traditional model, the highest importance is given to the principal and members of the school's leadership team, who are placed at the apex of the triangle. Their decisions percolate down to the teachers who implement and the students are on the passive receiving end at the base of the triangle. Students are handed down educational programmes decided by the school leaders or sometimes by the state. In the TQM scenario, the hierarchical organisational structure and top down decision-making are inverted so that principals lead from the bottom up. Also, the increasing importance of teachers and students is indicated by their positions in the upper parts



of the inverted triangle. Accordingly, educational programmes are designed by teachers and school leaders based on students' needs and expectations. This is indeed a fundamental paradigm shift in the culture of leadership of educational institutions, with school leaders expected to be less prescriptive and more supportive collaborators with other stakeholders.

The quest for quality also entails a focus on external networks with an emphasis on cooperation rather than competition (Deming, 1986, 2000; Oakland, 2003). Cooperation with parents, other schools, universities, future employers and the community enhances their satisfaction and loyalty. In this way, an effective chain of stakeholders is built through participation in decisions regarding improvements in the design and delivery of educational programmes. This entails the exploitation of information exchange systems including the use of the internet and email communication, and the establishment of teams which play a liaison role. Nonetheless, relationships among the school's external stakeholders will be superficial and cooperation will be unproductive unless these stakeholders perceive and trust that such activities will improve the school's quality, make attractive achievements possible, and not produce deceitful behaviour. In this case, school leaders' influence, in the ethical sense of a shared leadership approach, also projects outwards, directly and through their influence over the shared values in the school (González & Guillén, 2002).

### **2.5.3 Commitment to change and continuous improvement**

The TQM paradigm strives towards the constant development of all processes, viewing none as perfect, and those organisations that practise it engage in continuous improvement (Bonstingl, 2001; Oakland, 2003; Sallis, 2002). Senge (2006, p. 1) contends that *learning organisations*, "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 how to learn together", are most capable of surviving and prospering. Schools that are quality orientated believe that there is always room for more improvement that better meets their stakeholders' expectations. This means that the so-called stable school is not one that maintains the status quo, but rather is one that is aimed at continuous innovation and change (Gandolfi, 2006) and that

encourages and supports learning for students as well as teachers and leaders (Quicke, 2000).

Moreover, ongoing continuous improvement involves everybody and is both a bottom-up and top-down approach (Frazier, 1997; Swift, Ross & Omachonu, 1998). The focus of continuous quality improvement is on each person creating greater competency within him/herself and influencing others to do the same. If this drive behind the change process is lacking, the organisation is probably not realising its full human potential. This means that quality is aimed at optimising the potential within the organisation and must therefore be the concern of everybody in the school.

Practically, schools as learning organisations can be continuously improved by changing practices that focus on students' limitations and considering their range of innate strengths (Bonstingl, 2001). Teachers should be encouraged to acknowledge the existence of multiple intelligences and potentials within each student (Gardner, 1983) and help students develop these more fully and constantly. Schools should also afford the resources to embark on quality programmes, especially money needed for research and training on quality issues and time for communication with stakeholders (Bonstingl, 2001).

However, continuous improvement demands substantial effort and personal commitment. For this, staff members must be convinced individually that school leaders can be trusted, and that shared leadership intentions and actions are in their collective interest. They also perceive that the rewards for resulting improvements will be evenly and fairly distributed (González & Guillén, 2002; Perles, 2002). One possible source of this kind of commitment is *normative*, in Allen and Meyer's (1990) terminology. Staff members' normative commitment to the school is of a moral nature, based on their personal norms and values, and so they want to serve their school simply because they believe they 'ought to', rather than 'have to' or 'want to' (Noor Harun & Noor Hasrul, 2006). Hence, this type of commitment has to do with the ethical dimension of school leadership behaviour, over and above the mere use of formal power.

## **2.5.4 Decision-making based on data**

### ***Quality improvement tools and techniques***

Using tools to measure stakeholder satisfaction is central to TQM, and is what distinguishes TQM from other management theories and improvement efforts (Frazier, 1997; Kerzner, 2003). This means that schools are responsible to find out their stakeholders' requirements, to endeavour to satisfy them and then to determine the degree to which they have been satisfied. Correspondingly, there is an obligation on stakeholders to express clearly their needs and to participate in providing feedback for monitoring and review. These tools provide a means to enable facts and data to be collected to inform decision-making about continuous improvement (Jenkins, 2003; Kerzner, 2003; Okes, 2002; Weller & McElwee, 1997).

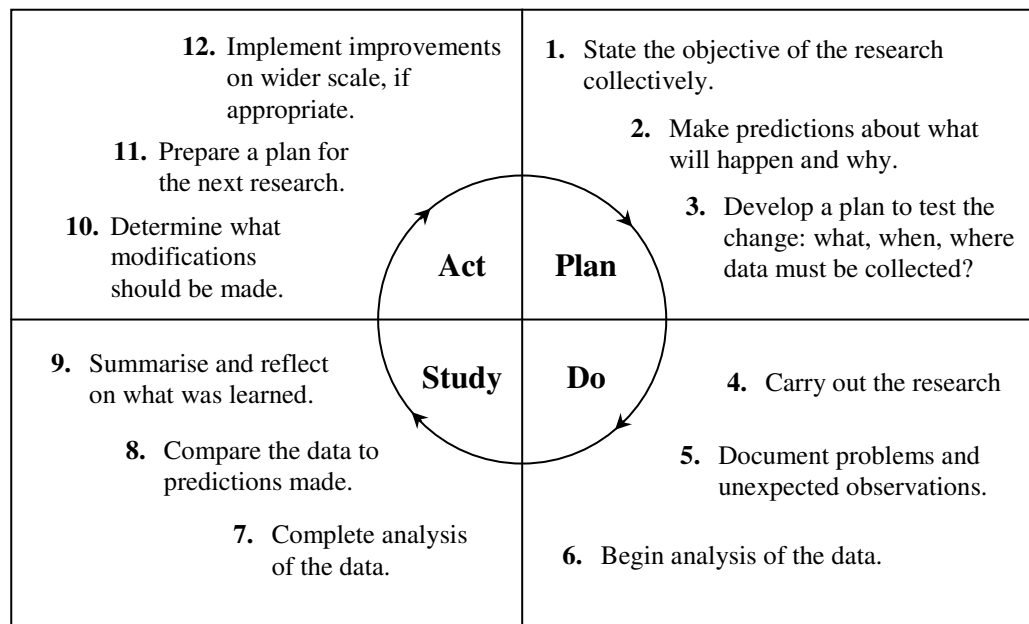
Some of the existing methods used for gathering data and information in schools are suggestion cards, shadowing, interviews, surveys and team meetings, but the emphasis from a quality perspective should be on "the extent to which listening takes place and action results" (West-Burnham, 1997, p. 52). It is important to place them in the context of effective team functioning, to see them as skills and tools that facilitate a team approach. Whilst tools and techniques are useful in many ways, the critiques are about them taking time, resources and focus away from teaching and learning (Jenkins, 2003). Hence feedback devices are negotiated to best meet the needs of the context and its stakeholders.

### ***The Plan-Do-Study-Act cycle***

Achieving quality is a journey and not a destination (Mukhopadhyay, 2005) and on the path to quality, processes must be continuously improved by reflection, altering, adding to, subtracting from and refining. The process of continuous improvement emphasises a cyclical process which can be visualised by the Plan-Do-Study-Act (PDSA) cycle (Czarnecki *et al.*, 2000; Langley *et al.*, 2009). This cycle is at the heart of what schools do in implementing TQM (Steyn, 2000) and is aligned with what many call 'action research' at the classroom level (e.g. Hewitt & Little, 2005; Stringer, 1999). The process consists of a logical sequence of four repetitive steps for reflective practice and continuous improvement and learning. Langley *et al.* (2009) provide a description of the PDSA cycle which I summarise and illustrate in Figure

2.7. The numbering represents the kinds of activities that occur in a logical sequence but, in reality, some of these processes occur concurrently, for example, 7-9 and 10-11 are often conducted together at around the same time.

After testing a change on a small scale, learning from each review, and refining the change through several PDSA cycles, the change can be implemented on a broader scale. The overall plan includes application and practice in teams of a school and standardisation and recognition of participants on a continuous basis (Langley *et al.*, 2009), similar to an action research model which focuses on reflective practice, in-situ and continual cycles of improvement. It implies that the resulting atmosphere may foster teacher collaboration and empowerment.



**Figure 2.7 The PDSA Cycle**

At first sight, it seems that the TQM principle of fact-based leadership can be driven solely and satisfactorily through the allocation of suitable resources and the deployment of appropriate quality tools. Assessment, reward and recognition systems can also be established to encourage participation and commitment towards continuous improvement. However, the utilisation of measurement and control systems implies the alignment of incentives with behaviours (González & Guillén, 2002). Such measurement systems must be designed so that they are appealing to stakeholders and encourage constructive behaviour. Hence, when the application of this TQM tenet is aimed at changing people’s behaviour, it calls for the subsistence

of the ethical dimension of school leadership. Otherwise, school leaders would be using mainly formal positional power to demand adhesion to an imposed vision, with the danger of promoting inauthentic practices, such as teachers teaching essentially to the test.

Moreover, it has been argued that education is currently too regulated and controlled by ‘facts’ or ‘supposed truths’ (quantitative data) (Hargreaves & Fink, 2006). While in agreement with the important role of the ‘scientific method’ (De Jager & Nieuwenhuis, 2005), some educational theorists believe that laws can not be identified that would hold true in all cases where human behaviour is concerned, and that while the behaviour of groups may at times be predicted in terms of probability, it is much harder to explain the behaviour of each individual or events. Such educational theorists would instead elicit the qualitative so as to gain a better understanding of the social reality (Bogdan & Biklen, 2002). To be more ethical, therefore, feedback incorporating a qualitative view based on lived experiences that would enable informed decisions should be valorised in an updated ethical TQM model.

### **2.5.5 Professional learning**

All professions require continuous development of knowledge and skills, and teaching is no exception (Somers & Sikorova, 2002; Vincent & Ross, 2001). To reculture schools and improve quality in education means to create an increased quality awareness among teachers and develop collaborative work cultures that focus in a sustained way on their continuous development in relation to supporting learning conditions for all students (Bernauer, 2002; Fredriksson, 2004). Continuous improvement also implies effective professional learning to equip teaching and non-teaching staff with the required knowledge and skills for the implementation of a particular approach. Like the members of other professions, teachers need to be continuous learners. This is even more important in the developing world, of which Mauritius forms part, where teaching remains confined to what Hargreaves (2000) terms a ‘pre-professional age’, with many ill-prepared teachers often teaching the curricula of their colonial masters with a restricted range of teaching strategies. It has to be noted that in many African countries, including Mauritius, a vast majority of teachers do not have any teacher education simply because a first degree in a relevant

academic field is the minimum requirement to enter the teaching profession and a professional teacher qualification is not even needed. Top priorities should therefore be to see that a sufficient number of teachers receive a high quality teacher education, to establish education programmes to upgrade all non-qualified teachers and to provide in-service professional development to all teachers on a regular basis.

Moreover, it is also unanimously recognised that a teacher's professional development does not end with the initial pre-service teacher education (Fredriksson, 2004; Somers & Sikorova, 2002). It should be ongoing and sustained in order to keep up to date with new educational thinking and enhance their teaching practice. Teaching is a dynamic profession and, as new knowledge about teaching and learning emerges, new pedagogical skills are required by teachers. On the other hand, teachers will not change their teaching practice unless they learn new ways to teach and learn (Wilms, 2003). Teachers, it could be argued, should also be educated about the quality philosophy, and acquire skills (handling of quality tools and techniques) and attitudes (active listening, critical reflection, cooperation) to be able to apply standards and a philosophy of continuous improvement and to make quality education a reality in schools (Steyn, 1996). Hence the necessity of ongoing professional learning opportunities lies at the heart of TQM (Swift, Ross & Omachonu, 1998; Detert *et al.*, 2000) (see also Table 2.2, Deming's Point 6).

However, the professional development of teachers "goes beyond the mere transmission of knowledge, being a practice closely linked to socialisation ... and the transmission of new values" (Perles, 2002, p. 63). To be true to Deming's philosophy, professional learning of teachers implies not only instruction in TQM tools, but also the transmission of the principle of continuous improvement and other TQM tenets (Deming, 1986, 2000). It should also serve to create and promote a working environment in which collaboration and involvement of teachers from different subject disciplines and departments prevail (Berry, 1997). Teachers learn best from each other through reflection and collaborative planning (Darling-Hammond, 2007). Thus, whilst the transfer of information is a necessary condition, it is not sufficient. True adhesion has its genesis in the free acceptance of the values and ideas proposed and goes beyond what can be observed and measured objectively (Perles, 2002). It further means that there must be trust in the premise that they will have positive consequences for all teachers and other stakeholders in the school. This

kind of trust is generated precisely from the ethical dimension of school leaders' stated intentions and actions.

### **2.5.6 Teamwork**

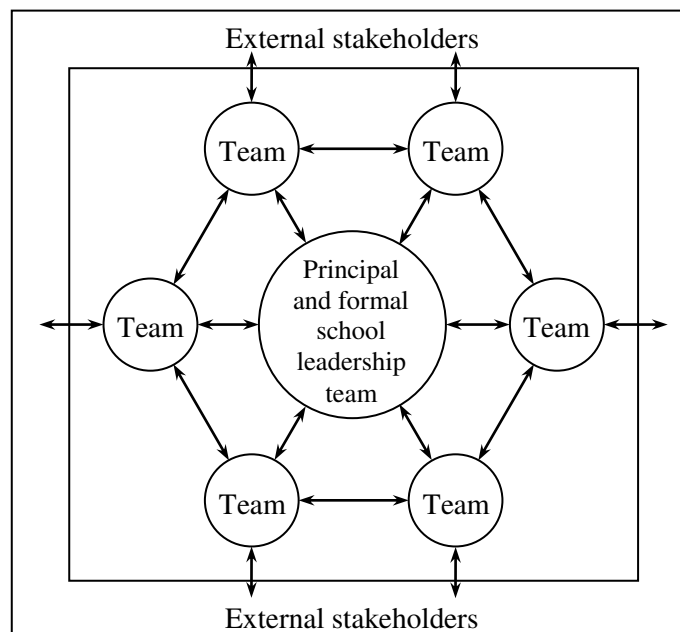
Teamwork facilitates the participation and involvement of staff members in improving all aspects of quality, and is an effective strategy in the deployment of TQM principles in schools for it creates a synergy of working together to add value to thinking, builds trust, improves communication and develops independence (Lycke, 2003; Oakland, 2003). Teams are part of the visionary and more reflective and distributed/shared styles of leadership which focus on consensus collective decision-making generating quality products and services in a timely and student-focused manner (Eng & Yusof, 2003). Teams become the 'engines' of quality improvement, and have the added advantage of involving the maximum number of people in the total quality process (Sallis, 2002).

Deming (1986, 2000) is also adamant of the need to break down barriers between departments and abolish competition within the organisation (see also Table 2.2, Deming's Point 9). Thus, to build an effective TQM culture, teamwork and cooperation should be extended and allowed to permeate throughout the school (Sallis, 2002). It should exist at all levels and across all departments and functions. School leaders can strive to encourage mixed teams of academic and support staff to be used in a wide range of decision-making and problem solving situations. For example, a team of teachers innovating in science education will be influenced and affected by a team working on student assessment and evaluation. The curriculum may also be taught in a multi-disciplinary way.

Teams can be characterised in terms of their operating functions, which are relevant to the quality improvement process. Dale (2003) identifies three types of teams: *project teams*, *quality circles*, and *quality improvement teams*. Quality improvement teams, however, are of particular importance for the application of TQM. This type of team is self-managed, which is a key element when quality is pursued. More specifically, quality improvement teams are small groups of teachers who have been empowered to manage themselves as well as the work that they perform daily. They are free to schedule, plan and control their own work, to address day-to-day problems

at work, to take job-related decisions and to share particular leadership responsibilities (Uhlfelder, 2000). The goals and objectives of the teams, however, must be congruent with the goals of the school as a whole. Quality improvement teams are formal, stable organisational structures empowered to achieve the goals of the school (Murgatroyd & Morgan, 1993).

One of the most prominent features of TQM organisations is the reduction of hierarchical levels and the restructuring of the organisation into semi-autonomous or self-directed work teams (Pun, Chin & Gill, 2001). According to West-Burnham (1997, 2004), the organisational structure for a quality-driven school comprises autonomous teams, which are laterally interacting with students and parents, with each other and with the official school leadership team, as depicted in Figure 2.8. The quality improvement team can, therefore, be regarded as a meaningful alternative away from the autocratic, top-down leadership/management style towards smaller autonomous teams by which teachers can manage themselves and their students' learning (Lycke, 2003). Arguably, in its most ideal sense, a quality-driven school is a community-building organisation.



**Figure 2.8 Organisational structure for a quality-driven school**  
(West-Burnham, 1997, p. 154, adapted)

However, teams often consist of few members who are therefore subject to intense communication flows. When this happens, the members are particularly sensitive to



the team leader's intentions. Consequently, if the affective commitment (rooted in feelings) and normative commitment (embedded in moral trust) (Allen & Meyer, 1990) of team members are not secured, it is conceivable that they may not place all their capabilities at the service of the group, and instead offer the strict minimum effort. This again provides a case for privileging the ethical dimension of leadership in the thorough and sustainable deployment of TQM tenets in schools.

Some measures that could be undertaken by school leaders to promote the TQM principle of teamwork are the setting up of liaison devices to facilitate communication and encourage empathy among all staff members, and the deployment of suitable incentive and reward systems that favour collective success over individual endeavours. However, by its very nature, the attitude of cooperation cannot be formalised or standardised since its outputs are uncertain and difficult to measure. Hence effective teamwork is very unlikely to be fully deployed without an atmosphere of trust. People's continuance commitment, affective commitment and normative commitment (Allen & Meyer, 1990) and 'discretionary effort' (March & Simon, 1993) cannot be produced and maintained over time without the kind of moral trust that the ethical dimension of leadership generates.

### **2.5.7 Focus on the system**

From a TQM perspective, a *system* may be defined as an organised assembly of components that are related in such a way that the behaviour of any individual component will influence the overall status of the system (Paton & McCalman, 2007). TQM is based on *systems thinking*, characterised by careful analysis of the interrelationships and interdependence of constituent units and sub-systems and interpretation of these interactions in predicting what may happen in other parts of the system if certain changes are made elsewhere (Mukhopadhyay, 2005).

A school as a system has inputs, that is, elements that are invested into schooling such as students, teachers, support staff, leaders, curriculum, infrastructure such as classrooms, laboratories and libraries, financial resources, and instructional resources including textbooks, audio-visual aids and computers. The main processes are admission, teaching and learning, assessment and evaluation, extra-curricular activities, curriculum development, management, administration, student support

services, human resource management, staff development, facility development, and promotion and marketing. The ultimate outcome of the education system is the quality of the students' learning. This not only implies their academic success, but also learning associated with the physical, mental, emotional, intellectual, moral and spiritual dimensions (Mukhopadhyay, 2005).

In the TQM approach, schools should focus on improving the quality of processes that affect the quality of teaching and learning. Quality should not be regarded as an entity or end result, but rather as generating an attitude that is built into the process (Deming, 2000). In classroom practice, it means that the processes of teaching and learning should be emphasised more than the achievements in examinations (Bonstingl, 2001; Tribus, 1993). As another example, suspending or expelling students may address a discipline problem in a school, but these are 'quick fix' solutions that do not look into the overall problem of student behaviour in that school. The focus of this solution to the problem is directed at the outcome (suspension and expulsion) and not at the process (questions which are concerned with the school's long-term strategic objectives and vision).

In essence, systems thinking ensures that "the intelligent school is a living organism ... a dynamic system that is more than just the sum of its parts" (Groundwater-Smith, 2005, p. 2), and not as a static collection of separate entities such as people, curriculum, staff development and infrastructure (Bennett & Kerr, 1996). The latter fragmented view undermines TQM. Institution building or community-building is a holistic consideration and involves looking at the school as a total organism (Steyn, 1996). Furthermore, it is important to transmit systems thinking amongst staff to facilitate understanding of the mutuality of roles, functions and interdependence of sub-systems (Zink, 1998).

Such a focus on systems and processes broadly means setting up technical specifications and standards and formalising work processes so as to align stakeholders' requirements and satisfaction, to detect and prevent deviations continually, and to satisfy expected levels of output (Dale, 2003; Deming, 1986, 2000). Process management is about identifying and defining the value-adding tasks and choosing a proper organisation design to implement them in practice (Oakland,

2003). It is also necessary to implement a set of measurement indicators and feedback systems.

Thus, it could be argued that this TQM principle can be realised satisfactorily in schools by the drive of school leaders using mostly their technical capacity and exercising their formal hierarchical and/or managerial power. In a sense, this could be seen as a necessary condition for shaping the school's framework that enables the implementation of other TQM tenets. Nonetheless, it seems sensible to assume again that, unless school leaders make fair criteria and decisions during the process and the ethical dimension is omnipresent, teachers and other stakeholders will be reluctant to follow new specifications or even offer resistance to change.

### **2.5.8 Cultural change**

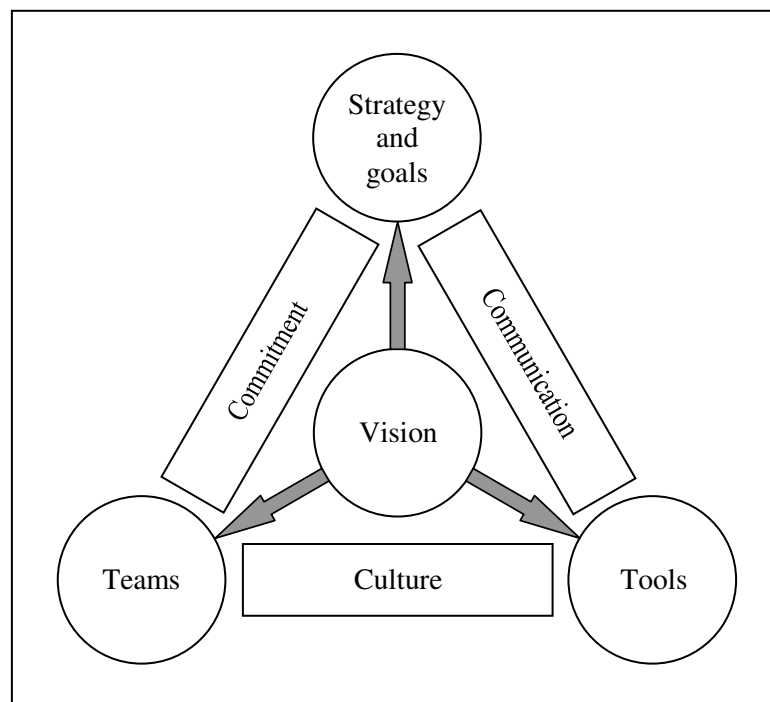
Lastly, TQM necessitates a change in the culture of the school as a framework to lead behaviour towards the pursuit of 'quality' – continuous improvement, stakeholder satisfaction, and collaboration within and outside the school. Whilst cultural change is considered a necessary condition in order to achieve excellence (Peters & Waterman, 1982), the inherent difficulty and low pace in its realisation in education, and beyond, lies in the fact that it involves transforming people's attitudes and behaviour (Kanji, 1996). This is precisely where the ethical dimension of school leadership plays a particularly important role. It is reasonable to deduce that "[w]hen people adhere to a new set of vital principles they need to trust that [these principles] will not only enable them to 'do' better, but also to 'be' better" (Perles, 2002, p. 65). This seems to imply that it is impossible to dissociate the 'technical development' and 'human development' of people within the work context. Consequently, it is very unlikely that significant changes can be brought in a school's ethos or culture if the ethical dimension of school leadership is missing (Starratt, 2004).

Having reviewed the key elements of TQM and their relevance and applicability in the education sector, and in continuation of the literature review, I investigate the key issues concerning TQM use or adoption in schools and pertinent critiques. I start by analysing two theoretical proposals for quality management in schools.

## 2.6 Theoretical models for quality management in schools

### 2.6.1 TQM model for school leadership

As noted earlier, leadership is the essence of TQM, yet it is leadership that differs in nature from conventional or traditional leadership notions. Leadership in the TQM context promotes a collective vision, meaning that it forms the basis for facilitating the work of others (empowerment) so that they can achieve challenging goals (performance) that meet or exceed the expectations of stakeholders (strategy). TQM leadership is associated with quality determinants such as vision, strategy, teams, tools for daily management, culture, commitment and communication. Figure 2.9 shows the relationships between the principles of TQM for schools.



**Figure 2.9 TQM model for school leadership**  
(Murgatroyd and Morgan, 1993, p 67)

Murgatroyd and Morgan (1993) contend that schools seek to become powerfully effective in achieving their objectives. They do this by creating an ethos or culture in which the range of shared values is high and commitment to these values translates into innovation and effective use of scarce resources. This can be driven by exemplary leadership characterised by the use of teams, tools and strategies as this cannot happen by chance, but needs to be planned strategically to achieve those

goals. Everyone involved in the school must be included in the development of a sense of the vision and should be encouraged to articulate the meaning of the vision. The vision should become the basis for encouraging, enabling, empowering and developing staff through teamwork, making use of available tools and setting the goals required. Hence, as illustrated in Figure 2.7, vision is the centre, and is an essential part of development strategy and goals for the school, forming the cornerstone for all directions and actions in the school.

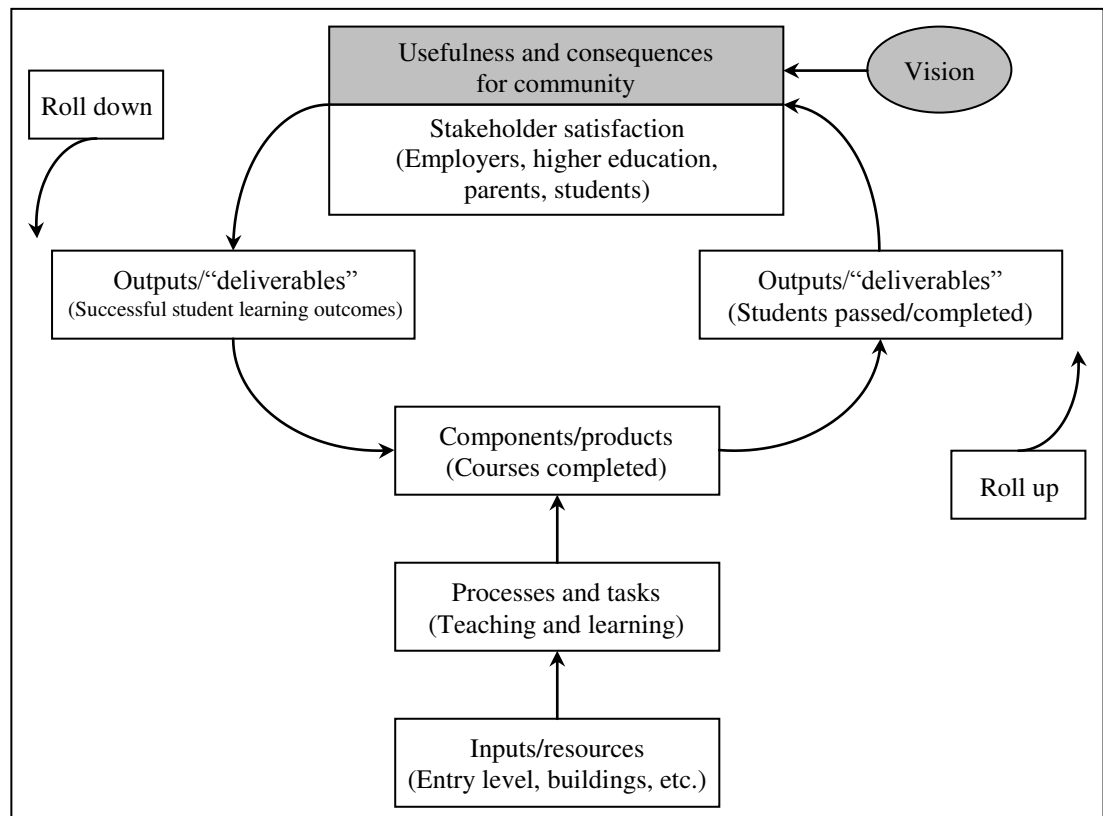
The two principles, vision and culture, in the model are essential elements to transform schools in the light of continuous improvement (Fuglestad & Lillejord, 2002). First, it is the responsibility of leaders to develop with staff and other stakeholders a shared vision, to lead culture change processes and to lay the foundation for the implementation of TQM with a view to improving the culture of teaching and learning at schools continuously. Secondly, it is the responsibility of leaders to inspire, promote and support the culture of performance excellence to change schools to be functional or effective to achieve their vision. Lastly, to operationalise the vision that has been collectively agreed upon, it is important to make use of teams and various tools to formulate and implement strategies because cultural change cannot happen by chance but needs to be planned and operationalised in order to achieve set goals.

In essence, leadership is important in relation to quality because it enables development of a vision for what is possible, a strategy for moving in this direction and a means of achieving individual and collective commitment to the goals of continuous improvement, which underpin quality (Middlehurst & Gordon, 1995). It must be noted, however, that such a focus is criticised in some literature. Some argue that the job requirements for principalship far exceed the reasonable capacities of any one person (Davis *et al.*, 2005; Starr, 2010; Thomson & Blackmore, 2004), hence the preference for shared/distributed/collegiate forms of leadership where decision-making, responsibility and accountability are collective activities.

### **2.6.2 TQM Plus model**

In the era of globalisation with its emphasis on productivity and competitiveness, it is important to focus on what is good for society, the community and students (mega

scoping). This means that the focus of the organisation should be on doing things that are really useful for the students in micro and macro contexts. It is accepted that people live in a shared world and that they are all better off when keeping an eye on the common good. The *TQM Plus model* (see Figure 2.10) adds societal consequences and pay-offs to conventional quality processes (Kaufman, 1994).



**Figure 2.10 TQM Plus model** (Kaufman, 1994, p 179, adapted)

According to this model, it is not sufficient to merely satisfy the internal and external stakeholders of the school. Schools should rather identify the real needs of the community as a whole, for example, the quality of life, environmental issues, crime and matters related to health and welfare (Kaufman, 1994). For instance, there is no use for a school to focus on processes to improve attendance figures and pass rates, yet produce students who are not equipped to cope with the demands of modern society. To establish those needs, schools should understand global demands for productivity, usefulness and competitiveness, while also being cognisant of local community imperatives and individual student learning needs. This strategy implies that students be equipped to take on the demands of global society while also aiming to become life-long learners.

This is worthy of further reflection for it gets into the realm of the purposes of schools. Many critics (e.g. Freeman, 2005; Hodgkinson, 2006; Miller, 2001; Youngs, 2007) believe that the major emphasis on education being a preparation for entry into the workforce to serve the economic needs of the nation is too narrow. Admittedly, there are other inherent benefits of schooling beyond workforce considerations, including the celebration of learning for the sake of, and enjoyment of, learning (Murphy, Beggs & Carlisle, 2004), and the social experience of schooling in transmitting and inculcating cultural and ethical values that seek to develop children's capacity for personal achievement as life-long learners and help them to contribute to society as active citizens for democracy (Macaulay, 2009; Freeman, 2005; Hodgkinson, 2006). However, a more holistic view of quality education would be one that recognises that education has not only an instrumental purpose, to prepare individuals for the labour market and to be citizens, but that it is also a good in itself (Fredriksson, 2004). In any case, school practitioners should decide collectively with their school communities upon the direction in which they want to develop their institutions before they engage in the implementation of TQM.

The effectiveness of schools also depends on a well-structured implementation strategy. This is discussed in the next section.

## **2.7 Road map for implementing TQM in schools**

There are several alternative ways of developing a plan or road map for implementing TQM in schools. Whilst maintaining that there have to be adequate efforts and investment in staff development, Crawford (1990) recommends the following eight stages in implementing TQM:

1. Vision: how the institution would like to be; what would constitute its greatness?
2. Define mission: compatible with vision.
3. Set objectives: transformed into specific, attainable, measurable goals.
4. Stakeholders' requirements broken down into elements.
5. Detailed process to satisfy stakeholder needs.
6. Specify materials, facilities, and standards to be met.
7. Plan to bring together human, physical, and financial resources.
8. Build in quality assurance mechanism.

Frazier (1997) suggests a six-stage road map: (1) prepare, (2) assess, (3) plan, (4) deploy, (5) sustain, (6) breakthrough.

Navaratnam (1997) offers a six-stage quality plan comprising the following: (1) awareness and self-assessment, (2) training and team building, (3) quality planning, (4) implementation process, (5) comprehensive evaluation, (6) continuous improvement.

Yudof and Busch-Vishniac (1996) insist that the participants be given instructional material on TQM well in advance, and given specific assignments for developing position papers. This, the authors contend, will keep them focused. Further, TQM is a post-modern development, hence, dependent upon new information systems and technology for measuring progress towards the quality journey.

Chaffee and Tierney (1988) identify nine stages to provide a broad context within which to consider application of TQM:

1. Find internal contradictions.
2. Develop a comparative awareness.
3. Clarify the identity of the institution.
4. Communicate.
5. Act on multiple, changing forms.
6. Treat every problem as if it has multiple solutions.
7. Treat every solution as a fleeting solution.
8. Look for consequences in unlikely places.
9. Be aware of any solution that hurts people or undermines strong values.

Chaffee and Tierney's nine areas are essentially process-oriented. Indeed, Deming's classical PDSA cycle also offers a scientific basis for process development.

Steyn (1996) highlights the importance of having a clear philosophy about quality to ensure a common understanding of the concept and the strategy for implementation. According to Steyn, the implementation and sustaining of quality principles in schools encompasses five different phases. The phases and the participants in each phase are depicted as the *educational quality model* in Table 2.5.

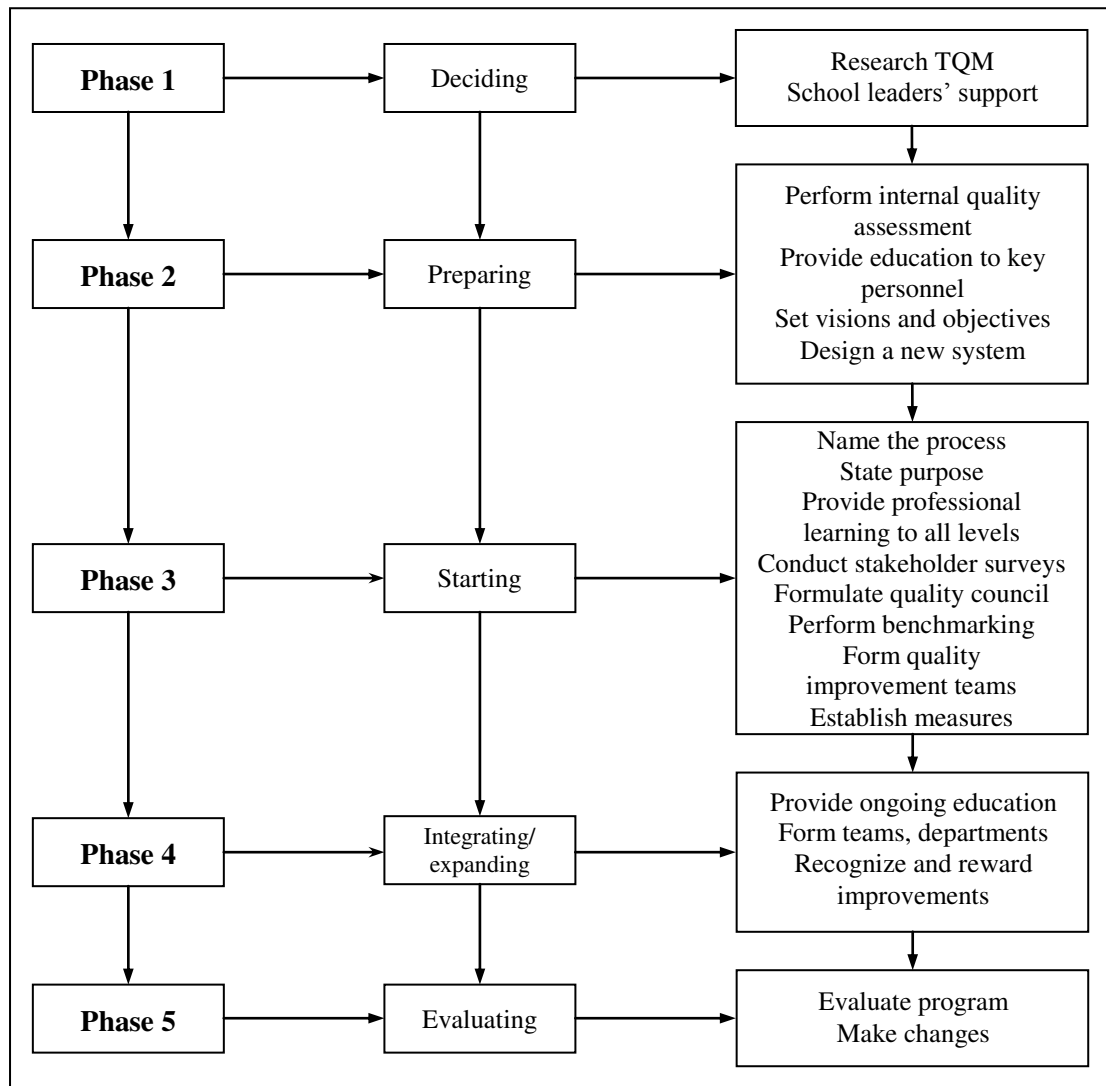


	<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>	<b>Phase 4</b>	<b>Phase 5</b>
Strategy	Quality leadership forum:  Appraisal, apply quality principles	Site-based approach:  Work teams, needs assessment	Classroom:  Classroom environment, instructional processes, curriculum, support processes	Learners:  Assist learners in applying quality principles for lifelong learning goals	Full implementation and sustaining of the quality model
Participants	Principal  Deputy principals(s)	Principal  Deputy principals(s)  Team leaders: • Curriculum • Enhancement team • Instructional improvement team • Professional development team • Ad hoc teams	Principal  Deputy principals(s)  Team leaders Team members Programme specialists	Councillors  Learners	All

**Table 2.5 The educational quality model** (Steyn, 1996, p 133)

Motwani and Kumar (1997) suggest a similar strategy for schools when implementing a TQM programme. This strategy also comprises five phases and is represented in a *conceptual TQM model for education* (see Figure 2.11).

Steyn's educational quality model and Motwani and Kumar's conceptual TQM model for education both suggest a five-phases strategy that can be implemented sequentially, but also allows schools to undertake the tasks in different sequences (Steyn, 1996; Motwani & Kumar, 1997). A synthesis of these two models has been made by Van der Westhuizen (2002) in an attempt to present a comprehensive strategy for the implementation of TQM in schools.



**Figure 2.11 Conceptual TQM model for education**

(Motwani and Kumar, 1997, p 134, adapted)

The different models proposed by Crawford (1990), Frazier (1997), Navaratnam (1997), Steyn (1996), and Motwani and Kumar (1997) have many common grounds. For example, Frazier's 'prepare and assess' is the same as Navaratnam's 'awareness and self-assessment' or Motwani and Kumar's Phases 1 and 2 (deciding and preparing). 'Plan' for Frazier is 'quality planning' for Navaratnam, and what is 'deploy' for Frazier is 'implementation process' for Navaratnam or Steyn's Phase 5 (full implementation) or Motwani and Kumar's Phase 4 (integrating/expanding). Yudof and Busch-Vishniac (1996) add the dimension of preparedness through advance reading and remaining focused through assignments on writing memorandums and papers. Chaffee and Tierney (1988) include some meaningful caution so that resistance is reduced.

Although various models have been developed for the implementation of TQM in educational institutions, it cannot be concluded which one is the best because the applicability is very situational and is dependent upon many factors.

## **2.8 The Mauritian case: Is TQM transferable to and useful in education?**

The links between educational reform initiatives, successful school leadership and student outcomes are clearly acknowledged in research literature. For example, Leithwood *et al.* (2004, p. 70) argue that:

There seems little doubt that ... school leadership provides a critical bridge between most educational reforms initiatives and their consequences for students. Of all the factors that contribute to what students learn at school, present evidence led us to the conclusion that leadership is second in strength only to classroom instruction. Furthermore, effective leadership has the greatest impact in those circumstances (e.g., schools “in trouble”) in which it is most needed. This evidence supports the present widespread interest in improving leadership as a key to the successful implementation of large-scale reforms.

Gurr, Drysdale and Mulford’s (2006) *Australian Model of Successful Principal Leadership* indicates that school leaders can impact, albeit mostly in an indirect manner, on student learning. In their research study, Davis *et al.* (2005) conclude that successful principals influence student achievement in two important ways: the support and development of effective teachers, and the implementation of effective organisational processes. Similarly, Robinson (2007) gives empirical evidence of how school leadership practices influence a wide range of students’ academic and non-academic outcomes. Hence a major challenge facing the Mauritian system in the pursuit of quality is continual improvement in educational leadership.

In Chapter 1, I argued that the growth of a competitive global market, coupled with the dubious quality of schools, have lead Mauritian educational leaders to be presently confronted by the challenge to develop effective leadership through the whole school system. Concurrently, there is a view that many principals are ineffective and lacking in accountability (MESR, 2004). The government itself acknowledges that: “The need for training in school leadership and management is strongly felt given that at present no training provision exists for prospective heads of

school prior to and after selection” (MESR, 2004, p. 19). This serious concern seems to cut across contexts, where it is acknowledged in the USA, for example, that candidates for principalship and current principals are often ill-prepared and inadequately supported to organise schools to improve learning while coping with all of the other demands that the job entails (Levine, 2005).

The economic needs of Mauritius as a developing country require that organisations, including schools, are continuously renewed and innovated (MEHR, 2006a, 2006b; MESR, 2003). Today Mauritius finds itself in an era in which quality is invariably a prerequisite for survival (Steyn, 1999; Romer, 2008). In the quest for quality in education, schools need to continuously engage in finding opportunities for improving the quality of the learning experience, and ensuring that the curriculum serves the educational needs of students and equips them to become lifelong learners, responsible citizens and effective participants in a global marketplace (MEHR, 2006a, 2006b; MESR, 2003; Partee & Sammon, 2001; Sunhaloo, Narsoo & Gopaul, 2009). More than ever, in today’s climate of heightened expectations, Mauritian principals are in the hot seat to improve the quality of teaching and learning in schools (Ah-Teck & Starr, 2011, in press).

The Mauritian 2001 educational reform seems to have been hampered by ‘factory model’ operating procedures (Purkey & Strahan, 1995) which usually includes defining problems, breaking them down, developing solutions, and testing those solutions. In contrast, the quality management paradigm advocates a ‘family model’ where schools develop more successfully through collaboration (Purkey & Strahan, 1995; Rhodes & Houghton-Hill, 2000). Since the quality management paradigm is a development/relations-orientated approach, emphasising aspects like leadership, organisational development and holistic quality management, based on a strong commitment to certain basic values about people, it may present an appropriate approach to addressing the quality issue in education (MEHR, 2006a, 2006b; MESR, 2003; Mukhopadhyay, 2005). This is the hope of Mauritian education policy makers.

As noted earlier, it was Deming who was among the first to introduce the concept of Total Quality Management (TQM) as a management philosophy to Japanese industrial leaders nearly 50 years ago (Bonstingl, 2001; Sallis, 2002), resulting in the transformation of products and services of leading Japanese companies. The TQM

philosophy replaces top-down, authoritarian modes of functioning with collaborative, community-building leadership practices. It focuses on achieving quality and can be defined as a long-term process of continuous improvement towards perceived standards of excellence to meet and exceed the needs and expectations of customers through an integrated system of tools, techniques, and training (Detert *et al.*, 2000; Waks & Frank, 1999). Epistemic interest arose to investigate the application of TQM to service sectors including education and health. Many researchers, including Bonstingl (2001), Mukhopadhyay, (2005), Sallis (2002) and Steyn (1999), contend that TQM provides a methodology that can assist educational leaders to cope with changes in and challenges to social environments.

TQM represents a radical change in leadership style and strategy for the management of Mauritian educational institutions which have been traditionally regulated and led. It can be regarded as a philosophy of organisational culture change (Ma & Macmillan, 1999; Schneider, 2000). Underlying this theory are certain pertinent features that distinguish TQM from other quality systems, including the key role of leadership, focus on students and their parents, teacher collaboration and empowerment, commitment to continuous improvement, and professional learning opportunities (De Jager & Nieuwenhuis, 2005). It can be said that all these integral concepts of TQM are characteristic of current directions in improving education (Leithwood *et al.*, 2004; Waks & Frank, 1999). Moreover, quality education is only possible when all the stakeholders in a school develop particular attitudes that precisely acknowledge the importance of these concepts (Mukhopadhyay, 2005).

The school as an organisation could be regarded as a system, whilst the work being done within this organisation as an ongoing process (Mukhopadhyay, 2005). A necessary condition for TQM to become reality in schools is that the school culture must be transformed into a new collegial culture which focuses attention on those holistic functions and processes that transform leaders', teachers', students' and other role players' cultures into effective and collaborative quality learning, teaching and provision of services (Holmes & McElwee, 2003). In particular, TQM comprises the transformation of the traditional hierarchical (pyramid) school structure into a new organisational structure that is founded along horizontal, rather than vertical lines of cooperation (Mukhopadhyay, 2005; Murgatroyd & Morgan, 1993). This process of change requires a deliberate, integrated and dynamic effort by school leaders and

embraces all role players, including staff members, students, parents and the community at large with student learning and satisfaction as the ultimate results (Mukhopadhyay, 2005; Sallis, 2002). In other words, TQM endorses current shifts towards 'distributed' or 'shared' leadership models.

It must be realised, however, that the implementation of TQM in schools entails a long and arduous process which may also be difficult to sustain. Schools that have implemented the paradigm have typically taken 3 to 5 years initially and the journey is a never-ending one (Bonstingl, 2001; Mukhopadhyay, 2005). Schools in Mauritius considering a process of school improvement through TQM should realise that this approach is not designed to give fast fixes to educational problems. However, it could have the potential to bring about change and improvement in the quality of schools as delineated by prominent theorists such as Leithwood *et al.* (2004) who endorse the same underlying precepts. Hence, it would be interesting to explore Mauritian school leaders' perceptions of how relevant and useful TQM may be, if this is not already the case, in providing an opportunity for them to work together with their staff and reconfigure education and learning in Mauritius for the better.

Some researchers, however, remain skeptical regarding the application of TQM in schools. Capper and Jamison (1993) warn against an uncritical acceptance of the TQM paradigm within the educational practice because it was originally developed in and for the business sector, while Reed, Lemak and Mero (2000) have criticised TQM on the ground that it provides a rhetoric that is individually interpreted and therefore carries inconsistent meaning across contexts. On the other hand, many authors believe that the quality movement is the answer to educational needs because it provides a structured, inter-connected, systematic educational delivery system, which leads to improvement in student performance, motivation, self-esteem, and confidence (Bonstingl, 2001; Sallis, 2002; Weller & McElwee, 1997).

In the next section, I provide an extended discussion of the critiques of TQM in schools.

## **2.9 Critiques of TQM in schools**

### **2.9.1 Reasons for TQM failure in education**

TQM was originally developed in the manufacturing sector and its adaptation to education seems to be a key challenge to schools and their leaders. Although TQM tenets match well with the school improvement process, TQM as an approach to change management is extremely difficult both to implement and to sustain in schools (Carlson, 1994). There are many obstacles that the different stakeholders must overcome together. Eliminating these obstacles completely may not be feasible, but efforts must be made to minimise their adverse impact on the school system. Hence it is important that these obstacles are clearly understood before they can be dealt with (Evans, 2001).

According to some critics, the failure rate of implementing TQM in schools is as high as 70% (Carlson, 1994; Gilbert, 1996). George and Weimerskirch (1998) assert that TQM failure could be ascribed to lack of leadership, middle management and union's misunderstanding, lack of participation and failure to include stakeholders in implementing TQM. Ali and Zairi (2005) identifies various root causes of quality system failure in education, including poor inputs, poor delivery services, lack of attention paid to performance standards and measurements, unmotivated staff and neglect of students' skills. Blankstein (1996, 2004) identified several reasons why TQM could fail in schools, which are backed up by other researchers, namely:

- ***People do not like change***

Teachers are tired of being asked to rethink their teaching methods and styles and are resistant to change (Evans, 2001; Fullan, 2007; Starr, in press (b)). Parents who fancy their children should have a 'successful' school experience identical to theirs in a traditional education system are unenthusiastic about new and different approaches to education.

- ***Leaders are supposed to take charge***

Principals may apprehend that abandoning administrative power over every aspect of the school could hamper its effective functioning. Other role players may also get used to established roles and find it hard to move away from their comfort zone.

There are instances in the extant literature where leadership is being ‘distributed’ to teachers and others but, in reality, influence and power are mainly situated with the principal as ‘formal’ leader (Dinham, 2005; Franey, 2002; Starr & Oakley, 2008).

- ***People can’t let go of grades***

Teachers are often pressured or mandated by legislators and others outside the school system to use quantitative methods, such as standardised test scores, to administer and measure students’ progress (Knoeppel & Rinehart, 2008). Parents can also be obstinate about the value of a grading system because they believe that their children’s future in the job market or higher education will necessarily depend on grades (Fullan, 2007).

- ***People do not put professional learning to best use in practice***

Teachers may be given information about quality principles, but without time to learn from their own and other’s experience, they will not put them into practice. Time and effort will be required for experimentation and reflection and not everyone will commit to such activities.

- ***People do not use data to improve systems***

Historically, educators have relied on intuition, routine and experience to solve complex problems in the process of schooling. Whereas emotions are important measures of personal well-being, they do not help to evaluate the stability or efficacy of a whole school system. Instead, data-driven decision-making, involving the use of quantitative or qualitative information, inform practitioners when determining a course of action involving policy and procedures (Picciano, 2006). Moreover, examination of data regarding inputs to schooling has strategic implications as school leaders attempt to readjust resource allocations to achieve different results. However, many researchers indicate that many educators do not use or understand how to use such data (e.g. Earl & Fullan, 2003; Schildkamp & Kuiper, 2010; Shen & Cooley, 2008).

- ***State-legislated mandates get in the way***

These are often incompatible with current inquiry-based methods of teaching and learning. Standards and state systems of accountability, including the use of



standardised tests, have created a situation in which teachers are assumed not be able to truly assess students' capabilities and they may therefore find themselves teaching to the test rather than challenging students to reach their potential (Knoeppel & Rinehart, 2008), and, in so doing, narrowing the curriculum to what is valued and perceived as 'quality' by the state. This may also lead to the creation of league tables of schools which ignore contextual student advantages or disadvantages, creating fear and distrust and labelling some students as 'failures.' Such situations can serve as ultimate hurdles to truly transforming schools (Zhao, 2007).

Blankstein (2004) further claims that using TQM will fail where quality already succeeds. Even if schools overcome the above obstacles, using TQM will not significantly improve the efficiency of teachers and other role players or change the learning experiences of students. The outcome would be more of the same with an exciting new label, TQM, on it. Sahney, Banwet and Karunes (2004) corroborate Blankstein's contention, arguing that the TQM approach in education, although useful in establishing what students expect, require and confirm their expectations to be met, its results are minimal in schools.

### **2.9.2 Elements of TQM hard to assimilate in education**

I provide below a list of other issues associated with TQM that may be hard to assimilate in schools or even form barriers to change for improvement.

- ***TQM is a generic philosophy***

In essence TQM is a generic philosophy of quality improvement, and not a specific leadership/management change strategy. The TQM philosophy allows for the development of models of quality that serve the specific needs of an organisation. TQM should, therefore, not be perceived as the unique means through which a school can achieve improved quality. Educational theorists and reformers advocate many other organisational theories and approaches to teaching and learning aimed at more efficient management and quality improvement, such as school effectiveness (Creemers, 2002; Pandey, 2006; Reynolds *et al.*, 2000), invitational education (IE) (Kalec, 2004, Steyn, 2005), professional development (PD) (Steyn, 2005), organisation development (OD) (Mitchell, 2004), co-operative learning (Coke, 2005), school-based management (Abu-Duhou, 1999; De Grauwe, 2005), outcome-

based education (OBE) (De Jager & Nieuwenhuis, 2005), and the school as a learning organisation (Harris & van Tassell, 2005; Gandolfi, 2006; Senge *et al.*, 2000).

Reed, Lemak and Mero (2000), however, are concerned about the many undefined or ill-defined concepts and practices associated with TQM. Their concerns revolve around the fact that a philosophical orientation that has power for some might become so open to interpretation by others that its individual concepts become vague and meaningless. For instance, whilst the perception of TQM as an error-free philosophy, aimed at the establishment of an organisational culture where mistakes are eliminated, is a desirable ideal in an industrial context, its feasibility and value within an educational institution are debatable. It seems that the educational process is more compatible with experimentation and the examination of alternative ideas as requirements of the learning process (Berry, 1997).

- ***The customer concept in education***

In TQM terms, quality is defined as customer-driven in satisfying customer needs and viewing the customer as the final judge of quality. In the first place, it is not an easy task for a school to identify its 'customers' (Daresh & Playko, 1995), and this uncertainty makes it difficult to develop a set of organisational activities and procedures to meet their needs. Teachers and principals tend to hold the belief that they know what the student needs, and retreat at the idea of having students as customers, as in 'the customer is always right' type of scenario. What students want from their schools may not be what they need and, by satisfying student needs, schools may put at risk the needs of society (Motwani & Kumar, 1997). In fact, the student-as-a-customer paradigm may cause schools to concentrate on short-term, narrow student satisfaction, rather than meeting the long-term needs of an entire range of role players including the long-term good of students even if some of it is unpopular (Bay & Daniel, 2001). Hence the customer-driven definition of quality may be unrealistic in relation to the value-laden environment of schools (Berry, 1997). Schools have many 'stakeholders', which would be preferable and more acceptable terminology in education. Correspondingly, Bay and Daniel (2001) present an alternative paradigm, the student as collaborative partner, where quality is regarded more as a negotiated phenomenon based on student, parent, professional

and department expectations and aspirations. Similarly, Scrabec, Jr. (2000) offers a *total quality education* (TQE) model in which the student, as the one given help, is viewed as a 'recipient' and not a customer, since allowing students to set education specifications would downgrade the very service being pursued.

Furthermore, satisfying the diverse, changing and often contradictory expectations of the external stakeholders of a school is a real challenge. Some parents may just want certificates with good grades, while others require human qualities, not merely intellectual development, yet others are more concerned about job prospects. Employers expect employees to bring in skills, including inter-personal skills and teamwork skills, that are readily usable and that can make them instantly productive. As an employer, the government also demands readily usable skills while expecting citizenship qualities that enrich community and national life. The immediate community makes a significant contribution to the maintenance and development of the school and, in turn, expects students to be caring for the community and its interests. Clearly, expectations of different categories of stakeholders of the same organisation are different and sometimes incompatible with one another. The challenge for schools is to periodically assess these expectations and find common grounds to satisfy them.

- ***The school as a system***

As mentioned in section 2.5.8, a school as a system has inputs such as students, infrastructure, financial resources and instructional resources. The processes are admission, instruction, evaluation and so on, while the outputs are the graduates and their academic capabilities, behavioural and physical attributes. These components as inputs, processes and outputs are interlinked and interdependent in a systemic framework to achieve a common purpose. However, unlike in industrial systems, the inputs, processes and outputs are not clear-cut in educational institutions. Often, the debate is in defining the boundaries between the input and the output in a school context (Mukhopadhyay, 2005). This is mainly due to the fact that the output at one stage is an input in another stage, turning the system into a cyclical process. For instance, management and administration as processes produce teacher satisfaction on the job (output). Satisfaction on the job in turn acts as an input for improved instructional systems and student performance (output). Therefore it is imperative for

a school leader to identify inputs and outputs with their quantitative and qualitative attributes, and also identify such outputs in the management of the institution that are fed back as inputs. Furthermore, students learn all the time, not just in schools. Some students will be advantaged by learning rich experiences outside the school while others will not.

- ***TQM processes familiar to education***

Schools are already undertaking processes that are compatible with the TQM philosophy. These include, amongst others, the practice of distributed leadership, the implementation of continual change for improvement, the use of curriculum teams, the relatively high level of responsibility which teachers have for educational decision-making in their classrooms, and the use of school-based strategic planning processes to meet ‘quality’ demands and expectations. The satisfaction of human needs, which is central to the TQM vision, is really nothing new but has been familiar to most teachers for many years. Also, whilst the emphasis of TQM on organisational culture may be new to schools, this cannot be attributed to TQM per se, as many schools have developed their own particular organisational ‘quality’ culture without resorting to TQM (Berry, 1997). Hence it may be argued that TQM merely revives old basic values, skills, and concepts.

- ***The practice of teaching and learning***

There is a concern that the relationship between TQM and improved learning outcomes may be unclear or even non-existent. This concern originates from the assumption that TQM may be relevant for the delivery of services, resources and programmes to schools, but not to curriculum delivery or assessment. This support structure may not be applicable to the improvement of the school’s prime purpose, which is the practice of teaching and learning (Berry, 1997).

- ***Measurement of quality***

A major complexity in applying the systems approach in education is the quantifiability and measurability of inputs and outputs (Mukhopadhyay, 2005). TQM requires rational decision-making based on qualitative and quantitative data from feedback about the performance of processes and products. Self-evaluation is another key aspect of TQM, which requires knowledge of statistical techniques for

individuals to assess themselves (Deming, 2000). This approach may be relevant to industrial enterprises, where outcomes are directly observable and measurable. The introduction of such techniques in schools may be inappropriate or culturally removed from the accepted intuitive and professional judgment of teachers (Berry, 1997). Murgatroyd (1993) suggests that statistical techniques should, in any case, be used sparingly and in a focused way with the intention that they enable understanding and facilitate the systematic examination of the consequences of change. The idea is that measurement should serve the task of improvement.

- ***Need for inspection in schools***

Within schools, quality control measures or inspection such as assessment, appraisal and testing are recognised as legitimate, and, in some schooling systems, are even mandatory processes to measure improvement and ascertain accountability. This is contradictory to the concept of built-in quality, which is a TQM requirement (Berry, 1997). In reality schools accept that some form of accountability is required to ensure quality improvement and to ensure responsiveness to stakeholders. As it stands, education authorities and policy makers may be courting TQM principles, but their adoption would contradict and contravene many current practices and existing policy statements.

### **2.9.3 Sustaining TQM efforts in education despite critiques**

Clearly, the TQM paradigm cannot be accepted blindly and uncritically within educational practice (Capper & Jamison, 1993; Carlson, 1994). Schools should rather be looked at as more flexible in their role definitions and the identification of a school's quality system may be much more difficult than in industrial settings (Berry, 1997). However, although schools may successfully launch TQM efforts there is no guarantee that they will sustain their implementation processes and continue to bring long-term performance improvement. The list of quality obstacles in education that I provide above is by no means exhaustive. Rather it highlights some of the common sources of quality failure. Understanding these obstacles helps to chart a way towards improving the quality of education in schools. Slack, Chambers and Johnston (2004) develop recommendations, listed below, of how to reduce the risk that impetus will be lost over time and quality disillusionment set in.

- *Quality in TQM should not be defined too narrowly:* TQM should include all aspects of performance and be captured in the goals set by the schools;
- *Relate TQM improvement efforts to performance objectives:* TQM must not be an end in itself; it should be seen as a means of improving performance;
- *TQM is not a substitute for good management:* TQM is not a substitute for the responsibilities of *normal* managerial leadership. Ineffective leaders cannot be made better by simply adopting the TQM philosophy;
- *TQM is not a bolt-on attachment:* TQM should not be seen as a separate activity and should be fully *integrated* with and made indistinguishable from other every-day activities;
- *TQM is not a fashionable slogan:* Since TQM has considerable intuitive attraction, due care should be taken to ensure that the hype or fashionable slogans of the motivational pull of TQM do not *become* a substitute for a well thought-out implementation plan;
- *TQM for schools must be adapted for different circumstances:* TQM should be adapted in different circumstances because of a school's particular, unique circumstances of day-to-day running of activities. This is because different aspects of TQM become more or less important.

By and large, the argument that because TQM methodology is conventionally written in the language of manufacturing, it is only relevant in that context, and is bent to the will of service organisations with difficulty and doubtful utility, demonstrates a misunderstanding of both the origins and philosophy of quality management and confuses *means* with *ends*. It is possible that to the extent that leadership and management tools are universal and transferable across the manufacturing/service divide, so are quality strategies.

## **2.10 Conclusion**

In this chapter, I focused on a review of the literature to explore the nature of TQM and its relevance, concurrence and applicability to current educational theory and practice. I also explored systems and processes relevant to the implementation of TQM tenets in schools together with the key issues involved. In particular, I demonstrated the importance of ethical school leadership in the deployment of TQM

tenets in schools in ways that are complete, deep and sustainable. Finally, I offered some critiques of TQM in school systems. Since the TQM philosophy places an overwhelming importance on ‘leadership’ as opposed to ‘management’, it could be argued that ‘TQM’ be more appropriately referred to as ‘TQL’ or ‘Total Quality Leadership.’

In any case, using the TQM paradigm would represent a cultural change and fundamental shift in thinking about school leadership in many, if not most, Mauritian schools and for the Mauritian education authorities who oversee them. TQM as a leadership approach focuses on the pursuit of quality, but achieving this must also not be regarded as a quick fix to educational problems. To be useful in education, it would be crucial for school leaders to work with stakeholders to understand clearly those TQM elements that are most pertinent for quality improvement and customise them to suit their particular contexts.

By all evidence, notwithstanding arguments against the use of TQM in education, TQM appears to offer opportunities for its adaptation to improve the quality of schools in a holistic manner and on a continuing basis. Hence, TQM may hold the potential to draw out Mauritian schools from their current quality crisis (see section 1.3), which is the view of policy makers. Whether this assumption is correct or not will be the focus of later chapters in this thesis. It is the aim of this research to investigate whether Mauritian school leaders already endorse elements of TQM or whether they believe elements of TQM could be usefully adopted if they are not already using them, since the Ministry of Education rhetoric endorses quality management (see also Ah-Teck & Starr, 2011, in press).

In Chapter 3, I shall outline the design of my empirical study before documenting the responses of school principals.

## *Chapter 3*

### **Research methodology and design**

*Quality is about customer delight rather than customer satisfaction. It is about total staff involvement rather than hierarchical, top-down system imposition. It is about incremental quality improvement rather than giant quality leaps. It is about living, loving, passion, fighting, cherishing, nurturing, struggling, crying, laughing ...*

Tony Henry, quoted in Sallis, *Total Quality Management in Education* (2002)

#### **3.1 Introduction**

This chapter presents the methods used to collect the data for this empirical study. The choice to undertake any kind of empirical research always presupposes the careful choice and design of appropriate research methodology. In this context, a *research design* is defined as a plan or blueprint of how to conduct research and *methodology* as the process, instruments and procedures to be used in such research (Babbie, 2003; de Vos *et al.*, 2005; Mouton, 2001). After having reviewed, in Chapter 2, the theoretical perspectives on TQM with particular reference to an educational context, I used the results of this process as a basis for designing and conducting this empirical research to achieve the research objectives (see section 1.4).

Questionnaires, interviews and direct observations are regarded as important means of data collection (Drew, Hardman & Hosp, 2007). Each of these methods has advantages and disadvantages, and their combination or ‘triangulation’ enhances the validity of the research findings (Berg, 2006; de Vos *et al.*, 2005). Patton (2002, p. 247) states that “triangulation strengthens a study by combining methods. This can mean using several kinds of methods or data, including using both quantitative and qualitative approaches.” Also, triangulation allows the researcher to study a complex picture of the phenomena being investigated, which might otherwise be unavailable if only one method were used (Risjord, Dunbar & Moloney, 2002; Thurmond, 2001). Accordingly, the use of the triangulation technique results in more substantive descriptions of reality (existing practice) and the development of a richer, more complete theory (Berg, 2006; de Vos *et al.*, 2005).



Hence, in this study, a combination of a questionnaire (quantitative approach) and interviews (qualitative approach) were used. I advocate the use of mixed methodological designs, where quantitative and qualitative designs are not viewed as incompatible with each other but are crucial to each other in researching complex educational problems (Johnson & Onwuegbuzie, 2004). Hereunder, I discuss the main features associated with quantitative and qualitative approaches. For each research instrument used, I examine the merits and limitations and give the reasons for choosing the instrument. I then address the details of the design and development of the instrument, and then discuss the sampling strategy (where applicable), administration procedure, data collection and analysis processes. There is a particular focus in my discussion on validity and reliability issues, as well as on ethical considerations, associated with each research instrument.

### **3.2 Quantitative phase of the empirical research**

A quantitative approach “facilitates deductive reasoning whereby the researcher starts with something that little is known about so as to further explore the topic” (Clifford, Cornwell & Harken, 1997, p. 342). By being inclined to be *deductive*, quantitative research tests theory. This is in contrast to most qualitative research which tends to be inductive; in other words, it generates theory.

Studies aimed at quantifying relationships tend to produce results that can be applied to all the subjects or wider and similar situations, that is, the results are *generalisable* (Winter, 2000). However, it is less easy to generalise with qualitative results (Kilbourn, 2006). The latter has to do with the problem of the sample used at the time; even if the researcher encountered the same sample on another occasion, he/she may find different results.

Perhaps the most obvious distinction between quantitative research and qualitative research is that the former uses data that are structured in the form of *numbers* or that can immediately be transported into numbers (Burns & Grove, 2003; Golafshani, 2003; Patton, 2002). If the data cannot be structured in the form of numbers, they are considered qualitative.

In summary, *objectivity, deductiveness, generalisability* and *numbers* are features often associated with quantitative research. Quantitative research can broadly be further classified into two main types: *descriptive* and *experimental*. In a descriptive study, no attempt is made to change behaviour or conditions: things are measured as they are. In an experimental study, measurements are taken, some sort of intervention is tried, and then measurements are taken again to investigate the effect, if any (Hopkins, 2008). In this study, the quantitative part was of a descriptive nature, whereby structured, self-assessment questionnaires were used.

### **3.2.1 The questionnaire as research instrument**

In this study, a structured, self-assessment questionnaire was used to obtain individual responses from school principals with regard to their beliefs about and application of quality principles (Gall, Gall & Borg, 2006). The aims of the questionnaire were to investigate quantitatively, from principals' perspectives, whether and the extent to which current school leadership practices in Mauritius have elements in common with TQM principles (see section 1.4, *Research objective 1*). The data collected will be described and interpreted in Chapter 4.

The following points were considered in designing the questionnaire (adapted from Berdie, Anderson & Niebuhr, 1992; Drew, Hardman & Hosp, 2007; Kothari, 1990):

- Only items/questions that are focused on the research question or hypothesis were included;
- Questionnaire items were formulated in simple, understandable language, and set in a logical order;
- Each questionnaire item was specific and not confusing. In particular, no more than one question was posed within an item and the use of unfamiliar abbreviations was avoided;
- The questionnaire was structured and standardised, where structure refers to the setting of items and standardisation refers to the same wording and the same order of questioning being used for all participants;
- Terms and concepts that are biased were avoided in a questionnaire so that questions did not appear to anticipate a certain answer;
- Ethically, questionnaire items of a sensitive nature were avoided;

- Clear and simple instructions on how to complete the questionnaire were provided.

Cohen, Manion and Morrisson (2007) support the use of closed questionnaires as useful instruments for collecting survey information since they provide structure, offer numerical data, and can be administered without the presence of the researcher. It is also more likely that respondents will be willing to complete this type of questionnaire as opposed to one with open questions, owing to the time and mental exhaustion of the latter. Besides, there is no guarantee that open-ended questions mean the same thing to different respondents (Robson, 2002). In this study, questionnaires were aimed at discovering causal relationships (de Vos *et al.*, 2005; Gall, Gall & Borg, 2006), and therefore included ordering and rating on a five-point Likert scale.

The most important advantage of the questionnaire was that it facilitated wide geographical coverage in a relatively time- and cost-effective manner (Babbie, 2003; Gall, Gall & Borg, 2006; Kumar, 2005; Neuman, 2005). In the quantitative phase of this study, the whole population of primary and secondary schools in Mauritius formed the research population. It was, therefore, obviously more practical and economical to mail the questionnaires than to visit each school with the aim of interviewing.

Another benefit of the structured questionnaire in this study is that the same set of questions, phrased in exactly the same way, were posed to the principals of all schools, forcing them to choose from a list of alternatives and eliciting relatively uniform responses. It therefore simplified the collection of relatively more information in an orderly manner. It also offered a transparent set of research procedures which could be re-analysed by others. Questionnaires can be administered personally or mailed to respondents almost anywhere and information can also be obtained by electronically administering the questionnaires (Sekaran, 2002).

In this study, the responses were required in writing and the participants had the opportunity to respond to the questions, in the absence of the researcher, at their own pace and without feeling intimidated. Thus, the threat of sensitivity as well as

possible invasion of privacy was avoided. Questionnaires guarantee more confidentiality than, for example, interviews since respondents could decide to remain anonymous (Babbie, 2003; Kumar, 2005). As a result, respondents may have been more inclined to be honest, which assists in obtaining more accurate and valid research information. In addition, the chances of the researcher creating bias on the participants' responses are eliminated as a result of the impersonal nature of the questionnaire (Babbie, 2003).

The benefits of the questionnaire as a research instrument can be summed up as follows. They:

- are particularly useful in describing the characteristics of a large population;
- make a very large sample feasible;
- are easy to dispatch;
- are economical in terms of time and money;
- avoid interview bias; and
- encourage more candid responses on sensitive issues due to the possibility of anonymity and privacy of questionnaires.

Hence, for the purposes of the quantitative phase of this study, a self-assessment by questionnaire administration was considered to be an appropriate data collection tool.

### **3.2.2 Limitations of the questionnaire**

While questionnaires offer many advantages in this study, they cannot provide complete answers or reveal the true situation. In particular, a structured questionnaire with closed questions cannot measure respondents' feelings and attitudes freely because of the restrictions on the choice of answers placed on the respondents (Johnson & Christensen, 2004). Moreover, strongly structured questionnaires can at times make in-depth analysis very difficult.

Once the questionnaires are distributed, it is impossible to modify the items, even though some questions may not be clear to some respondents. There is lack of follow-up opportunities to probe deeper into participants' responses where clarity is needed, and also responses cannot be supplemented with other information. Thus, the questionnaire is a relatively rigid method with little space for personal interaction

(Kumar, 2005), although space may be provided for respondents to make brief comments. In an interview situation, these limitations can be addressed more appropriately (Gall, Gall & Borg, 2006).

Another limitation is that there is hardly any control over the external circumstances under which the questionnaires are being completed, and on the date or time within which the responses are obtained.

It goes without saying that the design and administration of questionnaires require skills, competence, meticulousness and patience from the researcher. Poorly designed questionnaires may also lead to unsatisfactory completion. Travers (1978) reiterates that the formulation of questions is very important but warns that even though the researcher may formulate good questions relevant to the purpose of the study, criticisms will still be present.

### **3.2.3 Research population**

In this study, the principals of all 415 schools in Mauritius, consisting of 258 (62.2%) primary schools and 157 (37.8%) secondary schools (state and private schools included) formed the research population since this was of a size small enough to be considered manageable in terms of time and money. All the 415 school principals were therefore requested to complete the questionnaire. It should be mentioned that the few private/independent, non-government-aided, schools that exist in Mauritius, offering a different curriculum to almost all other schools, were not included in this study.

### **3.2.4 Ethical considerations for the questionnaire**

Ethics is concerned with what is right or wrong in the conduct of research (Mouton, 2001). Since educational research is a form of human conduct, it has to conform to generally accepted norms and values. The research must focus “chiefly, but by no means exclusively, on the subject matter and methods of research in so far as they affect the participants” (Cohen, Manion & Morrison, 2007, p. 50), and must not compromise participants.

Approval of and permission to commence the research were obtained through the Deakin Research Ethics Committee on 21 October 2009 (Project Ref No. HEAG 09-69) (see Appendix A). Permission was also sought from and kindly granted by the *Ministry of Education, Culture and Human Resources* (MECHR) (see Appendix B), the *Private Secondary Schools Authority* (PSSA) (see Appendix C), and the *Bureau de l'Education Catholique* (BEC) (see Appendix D) to conduct the study in the state schools and private schools. In the letter written to each of these three main governing bodies, the aim and objectives of the research were explained and a copy of the questionnaire was attached. An approximate time frame for the distribution of the questionnaire was also agreed with them.

In the Plain Language Statement (PLS) accompanying the questionnaire, information about the purpose of the questionnaire was provided to the participants. The participants' rights were protected: they were informed that participation is voluntary and that they could withdraw at any time should they so wish with no consequences. In addition, the participants were advised about the approximate completion time and the potential benefits of the research to them or their schools.

As a safeguard to respondents' privacy, anonymity was ensured. The questionnaire did not require respondents to write their personal names or any other personal information that may make it possible to link respondents' identities to the questionnaire. The respondents were assured that all information provided would be treated as strictly confidential, and would be reported only in aggregated form for academic research purposes. However, participants were made fully aware of the fact that the questionnaires were coded so as to re-identify the schools, if need be, for selection purposes for the subsequent interview component of the empirical study.

### **3.2.5 Developing the questionnaire**

The construction of the questionnaire was based on the structure and contents of the *Malcolm Baldrige National Quality Award* (MBNQA) *Education Criteria for Performance Excellence* framework (see section 2.3), while the TQM elements identified in the literature review were also considered.

I developed a questionnaire to gather data to assess the perceptions of primary and secondary principals about the current state of quality in Mauritian schools in terms of the seven quality dimensions of the MBNQA Education Criteria. The idea was to determine to what extent principals were using and agreed with principles of TQM to lead schools in Mauritius from their own perspectives. Based on the notion that the quality of schools is being assessed, I labelled my questionnaire the *School Quality Assessment Questionnaire* (SQAQ) (see Appendix E). It contained 135 items within the seven quality dimensions with statements addressing the operations and policies of schools. I also included demographic items (gender, age, years of experience as principal, level of education and position) to aid possible statistical comparisons and analysis of groups.

The SQAQ consisted of an initial section titled 'Background Information' followed by Sections A to G, with each section dealing with a particular dimension of the MBNQA Education Criteria.

The initial section titled *Background Information* contained items that were aimed at collecting background and work-related information (type of school, number of years of service as school leader, highest qualification, age and gender) from the respondents to ensure credibility and meaningfulness of this research (see Appendix E, Background Information, Items 1-5);

In *Section A (Leadership)*, the items were aimed at determining to what extent the respondents regarded organisational leadership, public responsibility and citizenship as relevant to a school's quality culture (see Appendix E, Section A, Items A1-A25);

*Section B (Strategic Planning)* determined to what extent strategic planning, development and deployment reflected the quality management of the school (see Appendix E, Section B, Items B1-B19);

The items in *Section C (Student and Stakeholder Focus)* established to what extent knowledge of student, stakeholder, and expectations, relationships and satisfaction indicated the school's quality management (see Appendix E, Section C, Items C1-C32);

*Section D (Information and Analysis)* determined to what extent measurement and analysis of organisational performance and information management contributed

toward the school's quality management (see Appendix E, Section D, Items D1-D12);

In *Section E (Faculty and Staff Focus)* the focus was on determining to what extent work systems, system and staff education, training, development, well-being and satisfaction were indicators of quality management at the school (see Appendix E, Section E, Items E1-E20);

*Section F (Educational and Support Process Management)* examined to what extent the school's education design and instructional approaches, student services, and support processes reflected the school's quality management (see Appendix E, Section F, Items F1-F20); and

The items in *Section G (School Performance Results)* examined to what extent organisational performance results demonstrated the quality of the school's educational programme (see Appendix E, Section G, Items G1-G7).

In Sections A to G, respondents were asked to consider a list of statements and decide to what extent each statement reflected the current situation at their respective schools by using a five-point Likert scale, as illustrated in Table 3.1.

Not true at all	Slightly true	Moderately true	Largely true	Absolutely true
0	1	2	3	4

**Table 3.1 Representation of scale codes**

Each scale has its own characteristics, as well as advantages and disadvantages. For the purposes of this study and the type of questionnaire used, I considered the summed scale to be the most appropriate scale. A summed scale consists of a number of statements representing a favourable or unfavourable (or neutral) opinion to which a respondent has to respond by indicating whether he or she agrees or disagrees, as well as the degrees thereof (Kothari, 1990). By using this scale the same answering categories could be used continuously. On the basis of the construction of the questions, the scale points varied between scale codes ranging from 'Not true at all' to 'Absolutely true'. Numerical values ranging from 0 to 4 were linked to the scale codes, and are explained in Table 3.2.



Scale code		Scale description
Not true at all	0	Indicates that the element of the dimension plays no role in the dimension
Slightly true	1	Indicates that the element of the dimension plays a slight role in the dimension
Moderately true	2	Indicates that the element of the dimension plays a moderate role in the dimension
Largely true	3	Indicates that the element of the dimension plays a large or important role in the dimension and that it should be part of the dimension
Absolutely true	4	Indicates that the element of the dimension plays a massive or full role in the dimension and that it is essential and should definitely be included in the dimension

**Table 3.2 Description of scale codes**

The advantages of using the above scale are the effective utilisation of space, quick assessment of questionnaires and the facilitation of comparisons between answers. The respondents' understanding of the aim and contents of the questionnaire was improved since the questionnaire was accompanied by a PLS and a consent form to secure their informed consent. Also, a glossary was included at the end of the questionnaire, explaining key terms.

### **3.2.6 Pre-testing the questionnaire**

Once a draft questionnaire has been constructed, with items scaled and set in a logical structured format, some type of pre-test has to be conducted. Pre-testing helps to uncover biased or ambiguous questions before they are administered at large (Sekaran, 2002). The pre-test was carried out with the piloting of one secondary school in Mauritius, where the questionnaire was personally administered. The pilot study served to assure that each item was appropriately placed within each of the seven criteria as defined in the Baldrige framework, to evaluate items for clarity and understanding, and to suggest new items where appropriate. Another important step taken in the pre-test stage was to send the draft questionnaire to be reviewed by two experienced school principals and by the Director of the *Bureau de L'Education Catholique* (BEC).

Based on the recommendations suggested by the two principals and the Director of BEC, and on the outcome of the pilot study, the questionnaire was revised, incorporating corrections and adaptations, and a final improved version produced.

### **3.2.7 Validity and reliability of the questionnaire**

Whatever procedure for collecting data is selected, it should always be examined critically to assess to what extent it is likely to be 'valid' and 'reliable.'

#### ***Validity***

*Validity* refers to the degree to which a measuring instrument item accurately and truly measures or describes what it is supposed to measure or describe (Bell, 2005; Kumar, 2005). Babbie (2003, p. 133) assumes that "validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration." Thus "questionnaire items are valid if they are successful in eliciting true responses relevant to the information desired" (Berdie, Anderson & Niebuhr, 1992, p. 13). It follows that respondents should attach the same meaning to the set questions. There are several kinds of validity assessment.

*Face validity* is considered to be a basic and lowest of all levels of validity. It indicates that the items being presented on the questionnaire are clear and understandable to the subject and refers to the question of whether a test appears to measure that which it is supposed to measure. Face validity is usually tested by giving the questionnaire to a sample of respondents to gauge their reaction to the items (Cavana, Delahaye & Sekaran, 2004).

*Content validity*, which is especially applicable to questionnaire design, is a judgmental or subjective evaluation of the extent to which statements or questions represent the issues they are supposed to measure (Burns & Bush, 2004). If the items of an instrument cover and measure the full range of the issues under consideration, it can be said that the instrument has content validity (Malhotra, 2006). Content validity is primarily based upon the logical link between the questions and the objectives of the study. Hence each question on the scale must have a logical link with an objective, and the establishment of this link establishes its content validity.

The *construct validity* of an instrument refers to the degree to which it succeeds in measuring the theoretical construct which it is intended to measure (Samson & Terziovski, 1999). “The construct is the initial concept, notion, question or hypothesis that determines which data is to be gathered and how it is to be gathered” (Golafshani, 2003, p. 599). There are two specific forms of construct validity: *convergent* and *discriminate* validity. Convergent validity is established when the scores obtained by two different instruments measuring the same theoretical construct are highly correlated. Discriminate validity is established when two theoretical variables are assumed to be unrelated, and the scores obtained by measuring them are indeed empirically found to be uncorrelated. Construct validity can be established by correlation analysis or, ideally, by factor analysis (Cavana, Delahaye & Sekaran, 2004).

In this study, the items in the questionnaire were designed according to the education criteria set in the MBNQA framework. The criteria were customised for the Mauritian context using the USA framework and the questionnaire can therefore be considered to have both face validity and content validity.

### ***Reliability***

*Reliability* is the extent to which a measuring instrument produces consistent results under constant conditions and on different occasions (Babbie, 2003; Bell, 2005). The greater the degree of consistency of results on repeated tests, the greater is the reliability of the measuring instrument. Thus a reliable questionnaire consists of items that consistently convey the same meaning to the participants in a survey. According to Mouton and Marais (1996), the central validity consideration in the process of data collection is linked to reliability, that is, whether applying a valid measuring instrument on various survey groups in various circumstances will lead to the same results. There are two types of reliability assessment for a given instrument: external reliability and internal reliability.

*External reliability* procedures compare cumulative test results with each other as a means of verifying the reliability of the measure. Sekaran (2002) suggests using the *test-retest* method and the *alternative forms* (or *parallel forms*) method to assess external reliability. In the test-retest method, the same set of measures is administered at two different times to the same respondents. In the alternative forms

method, two equivalent forms of a scale are constructed and then administered at two different times to the same respondents. In both the test-retest and alternative forms methods, the scores obtained at the two different times are then correlated.

The *internal reliability* of a measuring instrument refers to the degree to which measuring items in the set are homogenous (Samson & Terziovski, 1999), that is, the extent to which the instrument is consistent within itself. The assumption of internal reliability is that a good instrument is comprised of homogenous items. An instrument is considered to have high internal reliability when the responses to items measuring the same dimension are highly inter-correlated, for this suggests that the items are all measuring the same thing (De Vellis, 2003). The *split-half* method (or *subdivided-test* method) and *inter-item consistency* method are normally utilised to estimate internal reliability (Sekaran, 2002). In the split-half method, the scale is divided into two sets of items and given to the same respondents, and the reliability coefficient is estimated by correlating the scores of the two halves. The inter-item consistency method is a test of the consistency of respondents' responses to all the items in a measure. To the extent that items are independent measures of the same concept, they are correlated with one another (Sekaran, 2002). The most popular test of inter-item consistency is the *Cronbach alpha reliability coefficient*, whose value ranges from 0 to 1. The closer the value of this coefficient to 1, the better is the reliability. If the value of the coefficient is low, either there are too few items or there is very little commonality among the items. Nunnally (1978) suggests that a coefficient of 0.7 or above is desirable. Around 0.8 is recommended for research by Streiner (2003). It must be noted, however, that these 'criteria' are merely the result of convention.

In this particular study, because of time constraints, it was not feasible to check the external reliability of the questionnaire by the test-retest method or alternative forms method. Thus, the best measure of reliability of the questionnaire was its internal reliability. The *IBM SPSS Statistics 19* software program was used to conduct internal reliability analyses for the seven sections/dimensions in the questionnaire and for the whole questionnaire. The reliability coefficients for the various sections of the questionnaire are presented in Table 3.3.

Section of the SQAQ	Number of items	Cronbach alpha	<i>N</i>
A. Leadership	25	0.886	197
B. Strategic planning	19	0.885	203
C. Student and stakeholder focus	32	0.920	194
D. Information and analysis	12	0.862	204
E. Faculty and staff focus	20	0.911	197
F. Educational and support process management	20	0.900	200
G. School performance results	7	0.754	197
<b>Overall</b>	135	0.961	153

**Table 3.3 Sections A to G of the SQAQ: Cronbach alpha reliability coefficients**

The reliability coefficients for sections A to F ranged from 0.862 to 0.920, indicating a high positive correlation among all items within each of these sections. The reliability coefficient for section G was 0.754, signifying a moderate, albeit sufficient, positive correlation among all items within this section. The overall reliability coefficient for the questionnaire was 0.961, considerably exceeding guidelines for adequate reliability (Nunnally, 1978; Streiner, 2003) and demonstrating very strong internal consistency. The level of reliability of the questionnaire was therefore deemed to be more than sufficient for the purposes of this study.

Note that the internal reliability of the data-gathering instrument was enhanced by having consistent responses to each set of statements measuring the same quality dimension when piloting the questionnaire. In effect, giving the questionnaire a trial run and making the necessary amendments thereafter was a way of building in both reliability and validity to the instrument.

### **3.2.8 Distribution and return of questionnaires**

The permission of the MEHR, PSSA and BEC was obtained for mailing the questionnaire to the school principals. These principals were requested to complete the questionnaire and to return them by mail directly to the researcher.

The accompanying PLS and the instructions in the questionnaire were self-explanatory, and included the postal address and due date for the return of the

completed questionnaire. A glossary was also incorporated at the end of the questionnaire to explain terminology that may be unfamiliar to the respondents.

In this study, questionnaires totalling 415 were distributed to the schools and 213 (51.3 %) were returned. Although this response rate was disappointingly low, it was considered adequate for the purpose of this research since the participating principals represented the diversity in the research population (the whole school population in Mauritius) in terms schooling sector (private/state, Catholic/non-Catholic), level of schooling (primary/secondary), gender (boys/girls) and location (urban/rural).

### **3.2.9 Analysing questionnaire data**

The *IBM SPSS Statistics 19* software program was used to analyse the collected questionnaire data. For the introductory *Background Information* section of the SQAQ, descriptive statistics was used. Statistical tests, namely *one-way analysis of variance* (ANOVA) and *t-test* procedures were also used to determine differences in the responses of principals among the different *Background Information* categories. The aim of this section was to summarise data that could possibly be used to place responses to the questions in the other sections of the SQAQ in perspective.

For sections A to G of the SQAQ, *correlation* and *regression analyses* were undertaken to find the strengths and directions of relationships among the different dimensions on the SQAQ. In this study, the MBNQA Education Criteria for Performance Excellence model were studied to determine if the Baldrige theory of relationships among the seven Baldrige dimensions were supported in primary and secondary schools in Mauritius and also to provide insight into the strength and direction of causation among the seven dimensions. As is customary in social science research, tests of significance were evaluated at the 0.05 level.

To this end, I formulated four research hypotheses to test the Baldrige model's assertion that *Leadership* acts as a 'driver' of quality management by directly influencing the four system dimensions:

*H<sub>1</sub>: Leadership has a positive influence on Strategic Planning*

*H<sub>2</sub>: Leadership has a positive influence on Information and Analysis*

*H<sub>3</sub>: Leadership has a positive influence on Faculty and Staff Focus*

*H<sub>4</sub>: Leadership has a positive influence on Educational and Support Process Management*

Next, I formulated two hypotheses to test the Baldrige model's assertion that *Leadership* has a direct impact on the two outcome dimensions:

*H<sub>5</sub>: Leadership has a positive influence on Student and Stakeholder Focus*

*H<sub>6</sub>: Leadership has a positive influence on School Performance Results*

Finally, I formulated eight hypotheses to examine the directional relationship between each of the four system dimensions and each of the two outcome dimensions:

*H<sub>7</sub>: Strategic Planning has a positive influence on Student and Stakeholder Focus*

*H<sub>8</sub>: Strategic Planning has a positive influence on School Performance Results*

*H<sub>9</sub>: Information and Analysis has a positive influence on Student and Stakeholder Focus*

*H<sub>10</sub>: Information and Analysis has a positive influence on School Performance Results*

*H<sub>11</sub>: Faculty and Staff Focus has a positive influence on Student and Stakeholder Focus*

*H<sub>12</sub>: Faculty and Staff Focus has a positive influence on School Performance Results*

*H<sub>13</sub>: Educational and Support Process Management has a positive influence on Student and Stakeholder Focus*

*H<sub>14</sub>: Educational and Support Process Management has a positive influence on School Performance Results*

Each of these 14 hypothesised relationships was supported by the general theory that 'leadership drives the system which creates results' (Meyer & Collier, 2001; Pannirselvam & Ferguson, 2001). The general theory guided my assumption about a recursive causal model and the direction for each of the specific hypotheses. In testing the 14 hypotheses, *correlation analysis* was carried out to ascertain the interrelationships between the quality dimensions on the SQAQ. Then, *simple regression analysis* was used to examine the assumed causal relationships between the dimensions individually. Finally, *multiple regression analysis* was used to determine how some dimensions collectively influenced the outcome dimensions.

### 3.3 Qualitative phase of the empirical research

Quantitative research through a process of “measurement, variables, experimentation and operationalization usually transfers the original ‘voices’ of its research subjects into statistical data, mathematical relations, or other abstract parameters” (Schratz, 1993, p. 1), leaving little appreciation of the context in which particular social practices take place. In contrast, “[t]he qualitative research approach demands that the world be examined with the assumption that nothing is trivial, that everything has the potential of being a clue that might unlock a more comprehensive understanding of what is being studied” (Bogdan & Biklen, 2002, p. 9). Miles and Huberman (1994, p. 10) note that one major feature of qualitative data analysis is that it concentrates on “naturally occurring, ordinary events in natural settings” so that researchers have a good grasp of what ‘real life’ is about. They further note the richness and holism of qualitative data, which provide strong potential for revealing complexity, since such data provide ‘thick descriptors’ that are nested in a real context. 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. They focus on the quality and texture of events rather than how often those events occur (Kilbourn, 2006).

Hence, the qualitative research method has strengths over the quantitative research method when researchers are interested in observing and presenting a broader and deeper view of social reality within their research practices. However, qualitative methods are not without limitations. The highly subjective nature of the approach may make findings idiosyncratic and difficult to apply to settings outside of the research (Polit, Beck & Hungler, 2001). In this research, however, the qualitative aspects will be highly useful in determining generalisations about quality in education in Mauritius – information which to date does not exist.

In the qualitative part of this study, schools were the direct source of data. Selected principals were interviewed in their natural setting to investigate Mauritian principals’ views of whether their current leadership practices bear resemblance with the TQM philosophy, whether they believed TQM could inform school improvement, and whether other TQM-like tenets not currently in use could be usefully applied to transform schools (see section 1.4, *Research objective 2*).



The research method employed for the collection of the qualitative data was the face-to-face, individual, semi-structured interview.

### **3.3.1 The interview as research instrument**

Kvale (1996, pp. 1-2) remarks that the qualitative interview “is literally an interview, an interchange of views between two persons conversing about a theme of mutual interest,” where the researcher “attempts to understand the world from the subjects’ point of view, to unfold the meaning of peoples’ experiences, to uncover their lived world prior to scientific explanations.” Based on the degree of structuring, interviews can be classified into three categories, namely ‘structured’, ‘semi-structured’ and ‘unstructured’ interviews (Burns, 1997; Fontana & Frey, 2005).

Semi-structured interviews were conducted with a fairly open framework allowing for focused, conversational communication. I commenced with an outline of topics or issues to be covered but was free to vary the order of the questions and to add questions, allowing for flexibility to probe for details or discuss issues (Patton, 2002). Semi-structured interviewing is guided only in the sense that some form of interview guide is prepared in advance and provides a framework for the interview (Zhang & Wildemuth, 2009).

In the qualitative part of this study, it was my intention to gain an in-depth understanding of the reality of the leadership activities of school principals from their own individual perspectives and to explore their knowledge, experiences and perceptions on quality issues within their particular school context (Burns, 1997).

Semi-structured interviews can provide a rich and detailed set of data about perceptions, thoughts, feelings, and impressions of participants in their own words and in the context of lived experiences (Cohen, Manion & Morrison, 2007; Coleman & Briggs, 2007; Zhang & Wildemuth, 2009). Often the information obtained from such interviews provides not just answers, but the reasons for the answers. While quantitative results are sometimes dismissed on methodological grounds by those who disagree with the findings, it can be harder to disagree with the actual words of participants which reveal their powerful beliefs and emotions (Patton, 2002). There is

also a minimum of artificiality of response, unlike in survey questionnaires that ask for restricted, predetermined response categories provided by the researcher.

By means of the semi-structured interview, the questions I posed to the participants were based on the same themes as in the questionnaire previously used in the quantitative phase to supplement data and add depth to the responses obtained by means of the questionnaire. Where the questionnaires revealed some unexpected or interesting findings or ideas raised by participants, the interviews pursued these in greater detail to gain more insight into them. Ultimately, in this study, the use of interviews improved comparability and facilitated interpretation of the quantitative questionnaire data, thus enhancing the validity and reliability of the research findings.

Another obvious advantage of the semi-structured interview technique is its flexibility of approach. Although the questions were formulated in advance, I could alter the order and formulation during interviews and adjustment would also be made for specific circumstances and responses (Zhang & Wildemuth, 2009). de Vos *et al.* (2005) and Patton (2002) argue that when working from a qualitative perspective the researcher attempts a first-hand, holistic understanding of a phenomenon and the data collection gets shaped as the investigation proceeds. Thus the interview rests on the assumption that a valid understanding can be gained through accumulated knowledge acquired first-hand from the respondents.

An equally important benefit of the semi-structured interview in a qualitative study is that it provides the researcher with the opportunity to shed light on misunderstandings by probing for more details, assisting the participants to clarify their thoughts and ensuring that participants are interpreting questions the way they were intended or to go off on tangents that may be unexpected (Sewell, n.d.; Guba & Lincoln, 1989). Conversely, the researcher is able to check (verify or refute) the accuracy of ideas and impressions gained through theory and observation (Mouton, 2001).

Importantly, Patton (2002) points out that any face-to-face interview is a natural extension of participant observation. It also allows direct observation of non-verbal messages among the participants, which may be valuable in the interpretation of the

data collected. In particular, an interview allows the interviewer to observe the respondents for signs of evasiveness and non-cooperation. While these subjective factors can sometimes be regarded as threats to validity, they can also be strengths because the skilled interviewer can use flexibility and insight to ensure an in-depth, detailed understanding of the participant's experience.

Last but not least, individual interviews can be guaranteed to be fully confidential or anonymous since the information is not shared with other participants (Gibbs, 1997). In this study, individual interviews were particularly appropriate because the issues being discussed were somewhat sensitive, and trust, openness and honesty were required in a face-to-face approach to produce better data. In such cases, personal interviews are a suitable approach where confidentiality and privacy are easy to maintain (Morgan & Krueger, 1993).

### **3.3.2 Limitations of the interview**

Although the interview method has been applied widely in practice and academic research, as with all research methods, there are potential limitations. While some can be overcome by careful planning and moderating by the researcher, others are peculiar to this methodology and inevitable.

The fact that the semi-structured interview is flexible and less formal than other techniques, such as the structured interview or the questionnaire, is possibly its greatest strength and yet also a weakness. The semi-structured interview allows for adaptation but important aspects could be inadvertently missed (Sewell, n.d.). It may also take some practice for the interviewer to find the balance between open-ended and focused interviewing.

Moreover, the open-ended and personal nature of responses obtained from semi-structured/structured interviews often makes summarisation and interpretation of results difficult and time-consuming (Patton, 2002). Such interviews are regarded as more subjective than quantitative approaches because the researcher decides which quotes or specific examples to report (Sewell, n.d.). Furthermore, Bogdan and Biklen (2002) describe the data collected for qualitative research as 'soft', which are rich in description but not easily handled by statistical procedures.

Some authors have expressed doubts about the accuracy of individual interviews as a data-gathering instrument. For example, Zhang and Wildemuth (2009) believe that ‘directive’ questions asked by interviewers may bias the data by leading interviewees to respond in a way that they thought was expected or desired by the researcher. Similarly, Krueger and Casey (2000) have warned that the greater the degree of directiveness of the questions posed by the interviewer, the more likely the data obtained will represent the preconceived ideas of the interviewer as the position of the interviewee.

Qualitative interviews may be experienced as more intrusive than quantitative approaches. Participants may say more than they intended to say, and later regret having done so (Sewell, n.d). The confidential nature of this present study protected the participants should this have occurred, as did the provision of having the opportunity to alter the transcriptions if they so wished. Nevertheless, the semi-structured or unstructured interview is regarded as less intrusive to those being interviewed as it encourages two-way communication.

Data gathered from the interviews may only represent the standpoint of the small number of participants. It may well be that the data cannot be used to generalise findings to a whole population, mainly because of the limited number of participants and the likelihood that they do not form a representative sample (Gibbs, 1997; Krueger & Casey, 2000). In this study, however, since an explorative design was chosen and data were collected through in-depth interviews from a convenience sample of principals, some tentative generalisation is arguably possible if interview responses reveal common ‘themes.’ These are supported by data from the quantitative phase.

### **3.3.3 Sample selection of interview participants**

Qualitative research usually works with a small sample since the small number of cases are nested in their context and studied in depth, unlike quantitative research where large samples are used to provide statistical significance (Cresswell, 2002). This is why qualitative researchers tend to select interview participants *purposely*, that is, only those participants with rich experiences in the phenomena of concern and as many participants as necessary to gain a comprehensive understanding of the

phenomena are included (Streubert Speziale & Carpenter, 2003). Hence, in this qualitative part of the study, a purposive sampling strategy was employed. Another justification for using purposive sampling in this study is that the research process was one of 'discovery' or theory development rather than testing of hypotheses. Like a detective, a trail of clues was followed that led in a particular direction until the questions had been answered and things could be explained (Robson, 2002). This meant using common sense and judgment in selecting the right sample of schools for the purpose of the research.

Since the study was exploratory in nature, a small sample of six schools was used which allowed for high-level analytic work. The six selected schools consisted of two primary schools and four secondary schools. Whilst these formed quite a small sample, they represented school diversity in the population in terms of schooling sector, level of schooling, gender, location and socio-economic status of the families. Three schools were in urban areas and three were rural, three were state schools and three Catholic schools (also controlled by Mauritian education authorities). Two principals were females and four were males. Students were from varied socio-economic background: one school had children predominantly from professional families, another with a large population from working class families, and the others with mixed backgrounds. Difference between schools was seen as valuable for the research in exploring TQM's relevance and applicability in divergent contexts. Because of the small number of schools involved, no further identifying details are disclosed so as to ensure confidentiality. The selected schools were labelled School *A*, School *B*, School *C*, School *D*, School *E* and School *F*, and their principals were denoted by *PA*, *PB*, *PC*, *PD*, *PE* and *PF* respectively.

#### **3.3.4 Ethical considerations for the interview**

The personal, conversational nature of interview situations highlights many of the ethical considerations which apply to most other methods of social research (Patton, 2002).

When selecting and involving participants, an introductory statement, the Plain Language Statement (PLS), explained what the interview entailed and how interview data would be used in this project. Written consent information was explained and

also discussed, giving people the right to refuse to be interviewed and assuring those being interviewed that their participation was voluntary and that they could withdraw at any time without any consequences. An important clause was also included stating that if a participant withdraws from the project, the data collected from him/her would not be used.

It was also important to consider all potential risks and include them in the informed consent process. Participants were required to sign a consent form indicating their agreement to participate, after being informed of potential benefits and risks. I emphasised that the information would be used to gain greater understanding of issues, to improve policies and practices, and to help people rather than to harm them.

Because participants may be sharing very personal information and because they have to be protected from the possible risks of participating in the study, they had to be assured that they understood and trusted that their responses would be confidential. The identity of the participants' schools was masked, which made identification of the individual participants difficult, or even impossible, and in so doing ensured the anonymity of the participants. It was stated that the researcher's interest was not to judge the correctness of expressed attitudes or the morality/legality of reported behaviours.

To develop trust and gain cooperation, it was imperative to be honest and keep participants informed about expectations. It was important to warn the participants about their time commitment (Rabiee, 2004) and to inform them that the interview sessions would be recorded. Participants had the right to speak freely and without constraint. They had the right to remain silent, or if they spoke, to set limits on the personal information they divulged. They could skip objectionable items or refuse to answer any questions that they considered too intrusive. People had as much right not to speak as to speak. Under the right ethical conditions, however, interviews created a 'safe environment' in which speech is facilitated.

In this study, participants were allowed to listen to their audio-recorded responses and read observational notes taken in the field after the interview. In addition to enhancing the *credibility* of the results (see section 3.3.7), participants must be able

to exercise their right to delete any part that they feel unhappy they have provided, if they wished so.

### **3.3.5 Developing the interview guide**

In this study, the semi-structured interview was loosely directed by an interview guide, which McCann and Clark (2005) call an *aide mémoire*. This is a broad unordered list of topics that are to be covered in the interview, rather than the actual questions to be asked, and is subject to revision based on the responses of the interviewees. It serves as an agenda for researchers to make sure that they focus on the issues at hand rather than wander to unrelated topics (Lewis, 2000). Hence, a balance is achieved between flexibility and some degree of consistency across different interview sessions (Gall, Gall & Borg, 2006).

The key principles of TQM in education identified in the literature review, as well as the quality dimensions based on the MBNQA Education Criteria for Performance Excellence (NIST, 2004, 2010) used in the earlier quantitative questionnaire survey, guided the interviews (see Appendix *F*). The key principles of TQM in education were approached as the main topics for discussion and the associated items listed under each dimension were formulated as questions during the interviews, together with other questions based on the individual context of the conversation, in order to ensure that as much relevant data as possible could be gathered.

### **3.3.6 Pre-testing the interview**

Argyris (1999) claims that the more subjects are involved in planning and designing the research, the more we learn about the best ways to ask questions, the kind of resistance each research method would generate and the best way to gain genuine and long term interest in the research. Thus during the development phase, practice interviews were conducted with three senior colleagues in middle management positions, to enable familiarity with the questions and to get feedback about the experience. The interview was also pre-tested with an assistant school principal at one secondary school. The three senior colleagues and the assistant principal were not from the interview sample, but had all previously completed MEd degrees with

research components and so were judged to be competent in helping me with respect to the following aims (Gall, Gall & Borg, 2006):

- To review the content validity (see also section 3.3.7) of the open-ended questions in the interview guide and to determine whether items/questions should be rephrased; and
- To check possible communication problems by identifying items/questions that are ambiguous and, therefore, subject to different interpretations by different respondents.

The interview guide was adjusted accordingly, however comprehension and clarity were found to be acceptable.

### **3.3.7 Validity and reliability of the interview**

Some qualitative researchers, such as Corbin and Strauss (2008), view differently the concepts of validity and reliability that are generally accepted in quantitative research in the social sciences. They disagree with the basic realist assumption that there is a reality external to our perception of it. Thus, it does not seem sensible to be concerned with the ‘truth’ or ‘falsity’ of an observation with respect to an external reality, which is a primary concern of validity. In contrast, Stenbacka (2001) argues that since the issue of reliability concerns measurements, it is irrelevant in the judgment of the quality of qualitative research.

Guba and Lincoln (1989) propose a different set of standards for establishing the quality or ‘trustworthiness’ of data in qualitative research. They introduce the criteria of *credibility*, *transferability*, *dependability* and *confirmability* as alternative concepts to the more traditional quantitative criteria of *internal validity*, *external validity*, *reliability* and *objectivity*, respectively. The idea of discovering truth through measures of validity and reliability is substituted by the idea of trustworthiness, which establishes confidence in the findings (Guba & Lincoln, 1989) and leads to more “credible and defensible result[s]” (Johnson, 1997, p. 283). Although the work of Guba and Lincoln (1989) on trustworthiness is somewhat dated, Morse *et al.* (2002, p. 16) still regard it as “seminal and pertinent” although they claim that reliability and validity remain appropriate concepts for attaining rigor in qualitative research. On the other hand, although validity and reliability are treated



separately in quantitative studies, terminology used in qualitative research, such as such as credibility, transferability and trustworthiness, encompasses both validity and reliability (Golafshani, 2003).

The *credibility* criterion involves ensuring that the results of qualitative research are ‘credible’ or ‘believable’ from the perspective of the participant in the research. In this sense, the purpose of qualitative research is to describe and understand the phenomena of interest from the participant’s own point of view (Kvale, 1996; Patton, 2002). Hence, in this study, participants were allowed to listen to their audio-recorded responses and read the observational field notes taken immediately after the interview, and were asked if these reflected what they intended them to mean. Transcripts or analysed results were taken back to some of the interview participants so that they could themselves legitimately judge the credibility of the results.

*Transferability* refers to the extent to which the results of qualitative research can be ‘transferred’ or ‘generalised’ to other contexts or settings. From a qualitative perspective, transferability is primarily the responsibility of the one doing the generalising (Kvale, 1996; Patton, 2002). Essentially, it is established by providing “an extensive and careful description of the time, the place, the context, the culture in which those hypotheses were found salient” (Guba & Lincoln, 1989, pp. 241-242). In this study, I enhanced transferability by providing a detailed description of the research context and the assumptions that were central to the research. Consequently, anyone interested in transferring the results to another context would have a solid framework for comparisons (Merriam, 1998).

The notion of *dependability* emphasises the need for the researcher to account for the dynamic context within which research occurs. The researcher is responsible for describing the changes that occur in the setting and how these changes affected the way he or she approached the study (Morse *et al.*, 2002; Patton, 2002). The primary technique employed in the qualitative part of this study to ensure dependability was to report in detail the data collection and analysis strategies so as to provide a clear and accurate picture of the methods used. The second technique was the triangulation or multiple methods of data collection and analysis, which strengthens dependability as well as credibility (Merriam, 1998).

### **3.3.8 Conducting the interviews**

Each individual interview with a school principal was conducted at his or her workplace at a mutually agreed day and time in the principal's office, which was generally a comfortable and quiet setting. To minimise the problem of 'non-attenders', an agreed date was obtained from the potential participants well in advance of the interviews and reminded them a few days prior to the meetings.

Qualitative studies require the researcher to develop a very different relationship with the participants than in quantitative studies. The researcher should approach the subject as a 'collaborator' and an equal in the research process since it is the support and confidence of these participants that make it possible for the research to be completed (Burns & Grove, 2003). In a typical interview in this study, I introduced myself briefly and presented myself as someone who had an interest in the interviewee's work processes and experiences and was eager to understand them from the latter's perspectives. Adopting this kind of role established rapport and trust between the interviewee and the researcher and facilitated in-depth understanding of the interviewee's lives (Fontana & Frey, 2005; Zhang & Wildemuth, 2009). The introduction was then followed by an overview of the project, the purpose of the interview, ground rules and the first question (Kreuger & Casey, 2000).

All interviews were conducted in the language of instruction of the selected schools (Gall, Gall & Borg, 2006), which is either English or French or Creole. The questions were presented to participants in a way that promoted discussion in a non-threatening manner, keeping the participants focused on the topic by providing opportunities for clarification and probing of responses as well as additional follow-up questions (Denzin & Lincoln, 2005). At the end of each interview, a summary was provided, stressing the major points that had emerged and casting them in a positive light. Finally, the participants were instructed how to contact the researcher if they would need to and were thanked for their assistance.

Time management during the interview is an essential skill of the interviewer; for instance, he or she should note when a topic has been exhausted and further discussion will yield little new information (Lewis, 2000). During the interviews, a process approach was used that sought to constantly compare additional information

with established categories and explore instances of that category until no more information could be found. Bogdan and Biklen (2002) suggest that the length of interviews be limited, bearing in mind the valuable time of the interviews and the amount of time and work involved in transcribing the records. For example, a one-hour interview could easily take 5 to 6 hours to transcribe in full, leading to 30 to 40 pages of transcripts (Rabiee, 2004). It was also important to be sensitive to the participant's schedule and time limits. In this study, each interview session lasted between one hour and one-and-half hours.

The main disadvantage of recording an interview is that the presence of the recorder might cause the respondents to be reluctant to express their views unreservedly (Gall, Gall & Borg, 2006). Recorders are also prone to pick up background noises, and there is always a risk, however infinitesimal, that the recorder experiences technical problems and stops working during the interview. Luckily, nowadays researchers can make use of reliable digital recorders that can overcome many of these problems.

Since the advantages of recording outweigh its disadvantages, digital recording was preferred over note taking in this study. The microphones and recorder were set up prior to the interview and were visible to participants. The purpose of the recording was carefully explained so as to gain the confidence of the respondents, thereby minimising any undesirable effects of having the interview recorded (Gall, Gall & Borg, 2006), even though this was already stated in the PLS. In addition, as recommended by Rabiee (2004), reflective notes were also made immediately after each interview, especially of direct observations of non-verbal communication expressed by the participants, to add a valuable dimension to data analysis.

### **3.3.9 Analysing interview data**

The information collected from an interview is raw data. The researcher's task is to transcribe the entire interview so as to obtain a complete record of the discussion that will subsequently facilitate the analysis of the data. In this context, Patton (2002) advises researchers to develop sensitivity to the linguistic differences between oral speech and written text. In this study, the data collected from each interview were prepared for analysis with a verbatim transcription of the digital recorder used during the interview. Where necessary, the transcripts and the reflective/observational field

notes taken after the interview were translated into English. The essence of the responses to the open-ended questions were then captured in condensed tables (Gay, Mills and Airasian, 2005) using a process of ‘data reduction’ which “refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in written-up field notes or transcriptions” (Miles & Huberman, 1994, p. 10).

The next step was to analyse and interpret the data. In this study, the transcripts of the interviews were analysed with reference to the key principles of TQM in education. It was an exercise in grounded theory building, originally conceptualised by Glaser and Strauss (1967), which I describe below.

### ***Grounded theory***

Grounded theory has been extensively employed in educational and social research since the 1960s (Corbin & Strauss, 2008; Glaser & Strauss, 1967). According to Charmaz (2006, p. 2), the grounded theory method “consist[s] of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories ‘grounded’ in the data themselves. ... Thus, data form the foundation of our theory and our analysis of these data generates the concepts we construct.” Grounded theory attempts to represent the reality and experience of the people being studied and it also attempts to be abstract enough to include variations and be applicable in other contexts.

In this method, an inductive process is used to analyse emerging research insights continually, producing successive levels of analysis, further evidence and/or new theoretical insights (Corbin & Strauss, 2008). Grounded theory distinguishes itself from other research methodologies by involving the researcher in data analysis while collecting data, whereby the data analysis is used to inform and shape further data collection. Therefore, “the sharp distinction between data collection and analysis phases of traditional research is intentionally blurred in grounded theory studies” (Charmaz, 2006, p. 187).

At the heart of the analysis process within grounded theory is the process of coding, which means that category labels are ascribed to segments of data that describe what

each segment is about using category labels (Kerlinger & Lee, 1999; Cohen, Manion & Morrison, 2007). Coding therefore sorts and organises data, and provides a basis for making comparisons with other segments of data. In line with the classic grounded theory statements of Glaser and Strauss (1967), Corbin and Strauss (2008) describe three main coding procedures: open coding, axial coding and selective coding.

- *Open coding*

The preliminary coding using grounded theory analysis is called ‘open coding.’ It involves scrutinising very carefully the interview data and field notes, word by word, and line by line. The researcher identifies patterns, differences and similarities between events, actions and interactions and applies conceptual labels to these, grouping them into categories. The aim is to ‘crack open’ the data to make sense of them, and to describe the overall features of the phenomenon under study by uncovering links between events or interactions and producing theoretical concepts that could fit the data (Corbin & Strauss, 2008).

- *Axial coding*

During the next stage of ‘axial coding,’ the researcher develops each category into sub-categories and uses a ‘coding paradigm’ that seeks to identify causal relationships that might exist between them in order to understand and explain (1) the phenomenon under study, (2) the context conditions related to that phenomenon, (3) the actions and interactional strategies directed at managing or handling the phenomenon, and (4) the consequences of the actions/interactions related to the phenomenon (Corbin & Strauss, 2008). This results in cumulative knowledge about explicit connections between the categories and sub-categories. Axial coding is a cornerstone of Corbin and Strauss’ (2008) approach but is regarded by Charmaz (2006) as highly structured and optional.

- *Selective coding*

The last stage of coding is ‘selective coding,’ whereby the researcher intentionally selects and concentrates on one aspect as a core (or main) category and then systematically relates it to the other categories. When this selection is made, it delimits the theoretical analysis and development to those parts of the data that relate

to a particular core category. Open coding then ceases and the analysis becomes centred on that core category (Corbin & Strauss, 2008). The essential idea is to develop a single ‘storyline’ around which everything else is draped. It is thought that such a core concept always exists (Punch, 2005).

The grounded theory approach aims to generate a theory that accounts for a pattern of behaviour, which is relevant for those involved. The generation of theory occurs around a core category or several categories. A core category has several important functions in generating theory, since it accounts for most of the variation in a pattern of behaviour. Most other categories and their properties are related to the core category, making it subject to much qualification and modification. As these relationships are ascertained, they play a key role in integrating the theory, and lead to ‘data saturation’ (Charmaz, 2006) and ‘theoretical completeness’ (Corbin & Strauss, 2008). This completes the grounding of the theory – in other words, information reinforces and substantiates existing data.

In this study, school leadership practices based on the TQM paradigm was the phenomenon being studied. The causal conditions referred to the reasons why Mauritian principals perceive the adoption of a TQM approach to school improvement would be beneficial or otherwise, and whether principals believe that TQM tenets not currently used could be useful in school improvement activities. The context was a collection of organisational and environmental conditions that moderate the interactions among the causal conditions, phenomena, strategies, and consequences. Open coding identified several categories of causal conditions, phenomena, strategies, and consequences. Upon performing open and axial coding, I used selective coding that integrated the results (see also Ah-Teck & Starr, in press).

### **3.4 Limitations of the research**

There are a few limitations of the study which should be acknowledged. First, most of the literature review and the research evidence were from a western point of view. While this could be a criticism, there is little extant research data on this topic that pertains specifically to Mauritius. Secondly, the normal cautions regarding limited sample size and generalisability undoubtedly apply to this study’s data, particularly in the interview component where a small convenience sample was used. However,

the survey on which the interviews were based was sent to all principals in Mauritius. The interview sample would have been extended, but the original sample produced data that were saturated and which substantiated data collected in the quantitative phase. Third, the use of self-reported information can be prone to measurement error in studies of this nature. I have worked to ensure that findings are faithful to the data from which they emerged, and while it could be said that no researcher is fully objective, to the best of my ability I have put my own judgments aside to record the data accurately - as it was presented. Finally, the dependence of this research on principals' views as the unique source of data about school leadership could be a limitation as school leaders may be consistently more optimistic than other role players about the impact of their own leadership on efforts at school reform (Mulford *et al.*, 2000, 2001). Thus over-reliance on principals' perspectives may restrict understandings of the role and influences of leadership to some extent, and may even lead to inaccurate or erroneous results. However, it has been made clear from the start that this study focused on principals' opinions and perceptions. Other studies may take a different focus.

### **3.5 Conclusion**

This chapter has presented the research methodology and design for the quantitative and qualitative phases of the research that were used to seek answers to the research aim and objectives. The combination of quantitative and qualitative research approaches contributed to align the research aim and objectives with the practical considerations of the research process (Mouton & Marais, 1996). The research design in this study served both as a plan and a structure for the study. The research methodology maximised the eventual reliability and validity of the research findings through the creation of data collection conditions that combined relevance for the research purpose with the process of the research itself (Mouton & Marais, 1996; Mouton, 2001).

In the quantitative study, a structured, self-assessment questionnaire was developed to collect data from all primary and secondary school principals in Mauritius. A pilot study of the questionnaire was undertaken to pre-test and finalise it. The

questionnaires were distributed to the participants and the completed questionnaires were analysed statistically.

The qualitative phase of the research comprised individual interviews with principals from a selected sample of six schools. Interview questions and style were pre-tested and the interview guide adjusted accordingly. The actual interviews were recorded and transcribed in preparation for the data analysis.

In Chapter 4 and Chapter 5, the quantitative and qualitative research data will be presented, analysed and interpreted.



## *Chapter 4*

### **Quantitative data presentation and analysis**

*I can think of no other activity which promises more leverage in the improvement of society than the development of a generation which understands quality and is equipped to improve it.*

Myron Tribus, Quality management in education, *Journal of Quality and Participation* (1993)

#### **4.1 Introduction**

An important objective of this research was to investigate through a questionnaire survey, from principals' perspectives, whether current leadership practices in Mauritian schools have elements in common with the TQM philosophy (see section 1.4, *Research objective 1*) in an attempt to assess and describe the current quality climate in schools. Another important objective was to follow up through interviews Mauritian principals' perceptions and responses to TQM-related tenets for school improvement purposes (see section 1.4, *Research objective 2*). It has to be re-emphasised that Mauritian education authorities do endorse TQM-like principles in their policy and school reform documents, and hence principals' responses are important factors in reform activities. In this chapter, I present, analyse and interpret the results of the quantitative data collected from Mauritian principals through the *School Quality Assessment Questionnaire* (SQAQ) (see Appendix E) survey in the pursuit of *Research objective 1*. The following chapter deals with the qualitative data obtained in the subsequent interview phase of the empirical study in respect of *Research objective 2*.

#### **4.2 SQAQ survey: analysis of *Background Information***

The quantitative phase of the research provided for personal background information of school principals participating in the SQAQ survey. The data are summarised in Table 4.1. It is important to pay attention to such details when analysing and interpreting data, and the results that emerge from the empirical study conducted

with sections A to G of the SQAQ should not be viewed separately from the biographical data.

Category	Primary school	Secondary school	Frequency	Percentage
<b>Work Experience (years)</b>				
Less than 2	13	5	18	8.5
2–5	38	11	49	23.0
6–9	44	32	76	35.7
10 or more	32	37	69	32.4
(Missing detail)		1	1	0.5
<i>Total</i>	127	86	213	100
<b>Highest qualification</b>				
<i>Primary sector</i>				
TTC	2		2	1.6
ACE	0	N/A	0	0.0
TDip	1		1	0.8
CEM	16		16	12.6
ACEM	108		108	85.0
<i>Sub total</i>	127		127	100
<i>Secondary sector</i>				
Bachelor’s degree		9	9	10.5
BEd or PGCE		8	8	9.3
Postgraduate diploma	N/A	25	25	29.1
Master’s degree		44	44	51.2
Doctoral degree		0	0	0.0
<i>Sub total</i>		86	86	100
<b>Age (years)</b>				
20–29	0	0	0	0.0
30–39	5	6	11	5.2
40–49	59	26	85	39.9
50 or more	63	54	117	54.9
<i>Total</i>	127	86	213	100
<b>Gender</b>				
Male	68	29	97	45.5
Female	59	57	116	54.5
<i>Total</i>	127	86	213	100

**Table 4.1 SQAQ: Background Information of respondents**

In this study, questionnaires totalling 415 were distributed to the schools and 213 (51.3 %) were returned. The questionnaire survey therefore involved 213 participating school principals, of which 127 (59.6%) and 86 (40.4%) were from the primary and secondary sectors, respectively, which is fairly representative of the whole research population in terms of schooling level (62.2% primary schools and 37.8% secondary schools – see section 3.2.3). More than two thirds (68.1%) of all principals had at least 6 years’ experience in their current position. The majority

(85.0%) of participating primary principals held the highest possible educational qualification for the post of principalship (Advanced Certificate in Educational Management), while more than half (51.2%) of their secondary counterparts had a Masters degree. An overwhelming majority (94.8%) of all respondents were aged 40 years or more, while a slight majority (54.9%) were at least 50 years of age. Table 4.1 also shows the overall gender distribution of the respondents: 45.5% of them were male and 54.5% were female.

Statistical tests were also used to determine differences, if any, in the responses of principals among the different *Background Information* categories. In particular, *t*-tests were used to examine differences in responses of principals by school type (i.e. between primary and secondary principals) and by gender, while one-way ANOVA procedures were used to test for differences in responses of principals by work experience, highest qualification and age.

It was found that there were no significant differences in responses of principals by school type, highest qualification in the primary sector, and gender (whether between all male and all female principals, between primary schools' male and female principals, or between secondary schools' male and female principals). However, there were significant differences, all at 5% level ( $p < 0.05$ ), in responses of principals by work experience, highest qualification in the secondary sector, and age.

The significant differences in responses of principals by work experience were between the '2–5' and '6–9' year groups. Upon closer analysis, it was noted that these differences were not attributed to responses of primary principals, but instead to responses of secondary principals between the '< 2' and '6–9' year groups.

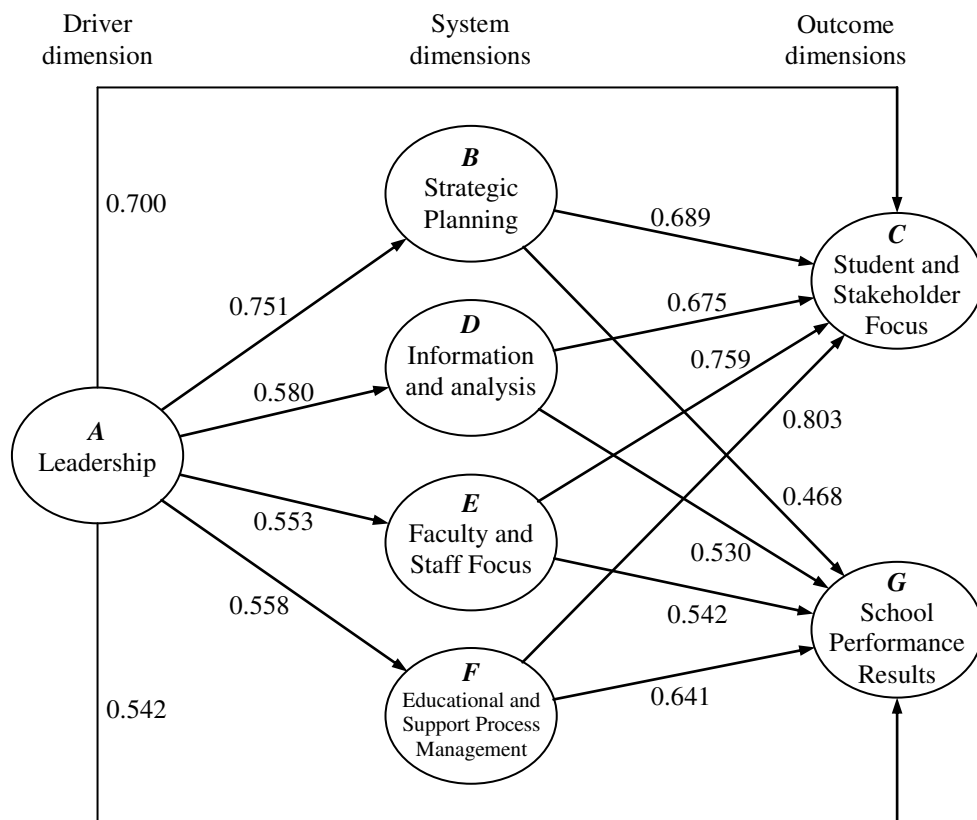
The significant differences in responses of secondary principals by highest qualification were between the 'Bachelor's degree' and 'Postgraduate diploma' categories, and between the 'Bachelor's degree' and 'Master's degree' categories.

The significant differences in responses of principals by age were between the '40–49' and '50+' year groups. There were also significant differences in responses of primary principals between the '40–49' and '50+' year groups, but no significant differences in responses of secondary principals by age.

### 4.3 Correlation and regression analyses: relationships among dimensions

#### 4.3.1 Correlation analysis

As part of the testing of the 14 hypotheses  $H_1$  to  $H_{14}$  (see section 3.2.9), correlation analyses were carried out in order to describe the degree, or strength, of the association that exist between the seven dimensions (Levin & Rubin, 1997) on the SQAQ, as assumed in the Baldrige Education Criteria for Performance Excellence framework (1992-1996) (see section 2.3). Figure 4.1 shows the resulting Pearson correlation coefficients among the seven dimensions.



**Figure 4.1 Pearson correlation coefficients between the seven dimensions on the SQAQ**

*(Note: All correlations are significant at the 0.01 level (2-tailed))*

Using the guidelines stated by Hinkle, Wiersma and Jurs (2002), correlation coefficients between 0.00 and 0.30 show little, if any, correlation; 0.30 to 0.50, a low correlation; 0.50 to 0.70, a moderate correlation; 0.70 to 0.90, a high correlation; and 0.90 to 1.00, a very high correlation.

Accordingly, Figure 4.1 shows that all the correlations among the seven dimensions were positive in nature, and most of these were moderate in strength. Only one of the relationships had a correlation coefficient less than 0.50, being between *Strategic Planning* and *School Performance Results* (0.468). Four of the seven relationships were in the high positive category; these were between the following dimensions:

- (i) *Leadership* and *Strategic Planning* (0.751);
- (ii) *Leadership* and *Student and Stakeholder Focus* (0.700);
- (iii) *Faculty and Staff Focus* and *Student and Stakeholder Focus* (0.759);
- (iv) *Educational and Support Process Management* and *Student and Stakeholder Focus* (0.803).

These relationships suggest that the assumed causal relationships in the Baldrige Education Criteria for Performance Excellence model hold in the Mauritian study, thus providing initial empirical support for each of the 14 hypotheses,  $H_1$  and  $H_{14}$ .

#### 4.3.2 Regression analysis

In testing the 14 hypotheses  $H_1$  to  $H_{14}$ , different sets of regression analyses were also conducted. In the first set, each of the four system dimensions (dependent variables) was regressed on the *Leadership* dimension (independent variable). Table 4.2 presents the standardised regression coefficients produced by this set of analysis.

Driver dimension (independent variable)		System dimension (dependent variable)			
		B. Strategic Planning	D. Information and Analysis	E. Faculty and Staff Focus	F. Educational and Support Process Management
A. Leadership	$r^2$	0.565	0.337	0.306	0.312
	$\beta$	0.751	0.580	0.553	0.558
	$p$	< 0.001	< 0.001	< 0.001	< 0.001

**Table 4.2 Regression results of the four system dimensions on *Leadership***

The  $r^2$  value is the *coefficient of determination*; it measures the fraction of the total variation of the dependent variable  $Y$  that is explained by the independent variable  $X$ , i.e. by the regression line  $Y = \alpha + \beta X$ , where  $\beta$  (beta) is the slope of the regression line.

For example, the *Leadership* dimension explains 56.5% of the variation in the *Strategic Planning* dimension and 30.6% of the variation in the *Faculty and Staff Focus* dimension. Thus, as per Table 4.2, the relationship between the *Leadership* dimension and each of the system dimensions was found to be between weak to moderate. However, they were all statistically significant.

The second set regressed each of the two outcome dimensions (dependent variables) on the *Leadership* dimension (independent variable). The regression analysis results produced in this case are reported in Table 4.3. It can again be noted that *Leadership* had a statistically significant effect on *Student and Stakeholder Focus* and *School Performance Results*, although the relationship was moderate in the former case and weak in the latter case.

Driver dimension (independent variable)		Outcome dimension (dependent variable)	
		C. Student and Stakeholder Focus	G. School Performance Results
A. Leadership	$r^2$	0.490	0.294
	$\beta$	0.700	0.542
	$p$	< 0.001	< 0.001

**Table 4.3 Regression results of the two outcome dimensions on *Leadership***

Next, I examined the relationships between the system dimensions (individually) as the independent variables and the outcome dimensions as the dependent variables. Again, the results, given in Table 4.4, indicate that each of the four system dimensions had either a moderate or relatively weak, but statistically significant, effect on the two outcome dimensions.

System dimension (independent variable)		Outcome dimension (dependent variable)	
		C. Student and Stakeholder Focus	G. School Performance Results
B. Strategic Planning	$r^2$	0.475	0.219
	$\beta$	0.689	0.468
	$p$	< 0.001	< 0.001
D. Information and Analysis	$r^2$	0.456	0.281
	$\beta$	0.675	0.530
	$p$	< 0.001	< 0.001
E. Faculty and Staff Focus	$r^2$	0.576	0.294
	$\beta$	0.759	0.542
	$p$	< 0.001	< 0.001
F. Educational and Support Process Management	$r^2$	0.645	0.411
	$\beta$	0.803	0.641
	$p$	< 0.001	< 0.001

**Table 4.4 Regression results of the two outcome dimensions on the four system dimensions (individually)**

Finally, I ran two sets of multiple regressions where the two outcome dimensions were the dependent variables and the four system dimensions were the independent variables. The results are reported in Table 4.5.

System dimension (independent variable)	Outcome dimension (dependent variable)					
	C. Student and Stakeholder Focus			G. School Performance Results		
	$\beta$	$t$	$p$	$\beta$	$t$	$p$
B. Strategic Planning	0.498	6.370	< 0.001	0.048	1.480	0.140
D. Information and Analysis	0.161	1.462	0.145	0.084	1.837	0.068
E. Faculty and staff focus	0.300	4.315	< 0.001	0.013	0.439	0.661
F. Educational and Support Process Management	0.570	7.248	< 0.001	0.174	5.360	< 0.001
Adjusted- $R^2$	0.759			0.431		
$F$ Test	166.059 ( $p < 0.001$ )			41.114 ( $p < 0.001$ )		

**Table 4.5 Multiple regression results of the two outcome dimensions on the four system dimensions**

$R^2$  is the *coefficient of multiple determination*, which measures the proportion of the total variation of the dependent variable  $Y$  that is explained by all the independent variables  $X_i$  collectively, i.e. by the multiple regression estimating equation

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4.$$

Here, this is reported as adjusted- $R^2$ , since a correction has been made to reflect the number of variables in the equation. The value  $\beta_i$  is the slope associated with the independent variable  $X_i$ . The computed value of  $F$  is a statistic used to explain whether the equation as a whole is statistically significant in explaining  $Y$ , while the computed value of  $t$  tests the significance of an individual explanatory variable  $X_i$  (Levin & Rubin, 1997).

It can be noted that the four system dimensions collectively had a relatively strong and statistically significant effect on the *Student and Stakeholder Focus* dimension, accounting for 75.9% of the variation in the latter dimension. On the other hand, the four system dimensions together had a moderate and statistically significant effect on the *School Performance Results* dimension, explaining 43.1% of the variation in that dimension. However, within the two multiple regression models, there were relatively weak and statistically non-significant individual relationships between:

- (i) the *Student and Stakeholder Focus* dimension and the *Information and Analysis* dimension,
- (ii) the *School Performance Results* dimension and the *Strategic Planning* dimension,
- (iii) the *School Performance Results* dimension and the *Information and Analysis* dimension, and
- (iv) the *School Performance Results* dimension and the *Faculty and Staff Focus* dimension.

(These non-significant results are highlighted in grey in Table 4.5.)

To summarise, the regression analyses show that *Leadership* significantly influenced each of the four system dimensions, thus giving support to the first four hypotheses,  $H_1$  to  $H_4$ . *Leadership* also significantly impacted on each of the two outcome dimensions directly, providing support for the next two hypotheses,  $H_5$  and  $H_6$ . Moreover, the system dimensions, individually and collectively, had a significant effect on the outcome dimensions, and these findings were in favour of the remaining eight hypotheses,  $H_7$  to  $H_{14}$ . These regression analysis results, together with the earlier positive correlation analysis results, are empirical evidence that both the direct effects of *Leadership* (driver dimension) on the outcome dimensions, and the indirect effects of *Leadership* on the outcome dimensions by mediating effects via the four



system dimensions, assumed in the Baldrige Education Criteria for Performance Excellence framework, were supported in the Mauritian study.

#### **4.4 Conclusion**

In the quantitative phase of the empirical research, the SQAQ was used to gather data from primary and secondary school principals in Mauritius. In this chapter, the data obtained were presented and analysed to assess and describe the current state of quality climate in Mauritian schools. Correlation and (simple and multiple) regression analyses were conducted to determine both the nature and strengths of the causal relationships assumed among the seven quality dimensions on the SQAQ, based on the MBNQA Education Criteria for Performance Excellence framework.

By providing empirical evidence of the nature and strength of the Baldrige theory of relationships between the leadership, systems and processes of primary and secondary schools and the ensuing outcomes, this study offers evidence on the current level of the quality climate in Mauritian schools. Specifically, the findings indicate that school leaders play a critical role in influencing school outcomes directly and indirectly through the inner workings of the schooling system. These findings and insights gained, together with those of the qualitative phase of the empirical study which form the focus of the following chapter (Chapter 5), will be used to discuss implications for school leadership and school improvement in Mauritius and scholarship in the final chapter (Chapter 6).

## Chapter 5

### Qualitative data presentation and analysis

*I don't know what I may seem to the world, but as to myself, I seem to have been only like a boy playing on the sea-shore and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.*

Sir Isaac Newton, quoted in Joseph Spence, *Anecdotes* (ed. J. Osborn, 1966)

#### 5.1 Introduction

In this chapter, I present and analyse the data gathered in the qualitative phase of the empirical study through the use of individual in-depth interviews. The aim of the interviews was to probe into the views of school principals in respect of the key principles of TQM in education identified in Chapter 2, which incorporate the quality dimensions based on the MBNQA Education Criteria for Performance Excellence (NIST, 2004, 2010) used in the earlier quantitative questionnaire survey. The TQM principles of (1) *leadership*, (2) *focus on the stakeholder*, (3) *commitment to change and continuous improvement*, (4) *decision-making based on data*, (5) *professional learning*, and (6) *teamwork* are reiterated and used as the organising framework and headings in this chapter to highlight themes in the data analysis. Because of the interdependence of the TQM principles, the data pertaining to the remaining TQM tenets identified in Chapter 2, namely (7) *focus on the system*, and (8) *cultural change*, are not analysed separately but are captured and subsumed within the other tenets.

Data were analysed for clues about how the principals viewed their own leadership roles and practices, whether these corroborated with the tenets of TQM, and whether they perceived other TQM tenets not presently used as potentially useful for adaptation for school improvement (see section 1.4, *Research objective 2*). Thus the data are tied clearly to TQM. In particular, Deming's (1986, 2000) theory and his '14 points for management' (see Chapter 2, Table 2.2) are instrumental in the analysis of the data in this chapter.

The literature review in Chapter 2 (see section 2.5.1) gives credence to the view that the moral and ethical imperatives which underpin school leadership, the notion of distributed leadership and other related leadership practices corroborating with the tenets of TQM are not discrete entities but interactive aspects of the same package. Thus, in this chapter, I also provide an analysis of Mauritian principals' values and ethics which appear to underpin their leadership practices so as to explore and understand the ethical/moral dimension of leadership in the implementation of TQM in schools, often silenced in the literature. Because Starratt's (2004) *ethical school leadership framework* (see section 2.5.1) is closely and directly linked to school leaders' and other stakeholders' work in the pursuit of 'quality' student outcomes, it is used as part of the organising framework within the 'leadership' tenet/heading in analysing the data in this chapter.

Principals' views are important if TQM-like tenets are to guide the Mauritian educational system as authorities are suggesting. Before embarking on the analysis of the interview data, it is important to highlight some general observations about the context in which schools and their leaders operate in Mauritius. In the centrally controlled, traditionally framed education system in Mauritius, the role of principals is that of middle managers who enforce decisions made by the government even if policy discourse contradicts that. As such, school principals are appointed to their positions without any specific requirement for professional development, and they act according to the best of their abilities to ensure the smooth operation of their schools. School leadership remains hierarchical with the principal and school leadership team at the apex. Thus, in reality, principals remain central figures in schools, although their authority is limited within the wider organisational structure since they are expected to enact the decisions made by the education authorities at the state level. Given the absence of a system of self-management that would have created a decentralised public administration framework, it would be interesting to investigate how principals' practices support, divert from, or are incompatible with TQM tenets since the education authorities are suggesting a focus on quality management.

## **5.2 Leadership**

The key role of leadership in implementing the principles of TQM in a school context and beyond cannot be overemphasised. The crucial element in implementing the TQM philosophy in any organisation is to ‘institute leadership’ (Table 2.2, Deming’s Point 7), by influencing, motivating and inspiring people to create a collective vision and achieve it (Deming, 1986, 2000). School principals must be committed to a vision that stresses the development of human capital in the school, inspire, provoke and encourage in their staff an ethic of continual improvement, a pride in teaching, and a focus on quality. They must be team-builders who can create a culture of openness, collegiality, confidence, and introspection among the teachers (Silins & Mulford, 2002). The job of principals is a special kind of leadership that will transform the culture of the school through distributed responsibility so that teachers, parents, students and other role players are partners in improving education (Starr, in press (c)).

### **5.2.1 Distributed leadership**

#### ***Formal leaders’ commitment to ‘quality’***

The TQM literature in education supports the view that stakeholders should perceive the school leader as committed to the quality philosophy. The process of change and quality transformation is seen as the responsibility of the school leadership team and the initiative for change originates from the ‘top’ but the TQM tenet of cooperation among staff is rather of a ‘distributed’ stance (Deming, 1986, 2000; González & Guillén, 2002; Perles, 2002; Bonstingl, 2001). This could be viewed as an inherent contradiction in TQM. However, the TQM approach is both a ‘top down’ approach and a ‘bottom up’ approach. The former approach is merely an initiation process whereby the formal school leader or the school leadership team takes the initiative to start and invite others into the quality journey whereas the emphasis is overwhelmingly on the latter approach to pursue genuinely shared, bottom up leadership along the never-ending quality journey (Mukhopadhyay, 2005). Current school leadership literature corroborates with Deming’s (1986, 2000) assertion that a key characteristic of an effective school leader is that of setting the example, of communicating beliefs and ideas through leadership behaviour (e.g. Leithwood *et al.*,

2006), but it cannot be overemphasised that the overall approach of TQM should very much be collaborative in nature.

In this study, when asked '*what sort of leadership style do you practice or privilege?*', representative statements made by principals included the following:

In this school, we are committed to genuinely shared leadership responsibilities. ... You know how demanding the work of the [principal] is these days. I therefore believe in delegating tasks to other people. ... For example, there is a dean of studies for each [year group] who would deal with all administrative matters relating to that [year group] and share my duties and responsibilities as the [principal]. My work gets done more easily when people share the workload. In this way, I can concentrate on ... things that need to be done at the strategic level. (*PA*)

I regard leadership styles that structure everything from the top as 'obsolete.' People's ideas are used and there is wide consultation to involve 'grassroots level' before decisions are taken. My emphasis is on consultation and participation. (*PF*)

While these comments are suggestive of elements of a distributed leadership stance, they indicate that principals essentially held traditional and conservative views of leadership. They frequently used the words 'I' and 'my' which were suggestive of an underlying autocratic leadership style with a misconception that 'leader' and 'leadership' are one and the same (Cunliffe, 2009; Lambert, 2003; Starr, in press (a)). For example, despite principal *PA* being vocal about his/her practice or acceptance of "genuinely shared leadership responsibilities" (*PA*), his/her conception of distributed leadership in effect amounts to little more than sharing the workload of over-worked principals. Similarly, the comment by principal *PF* in itself reveals a major contradiction: the principal referred to the terms 'consultation' and 'participation' simultaneously to suggest that these terms are part and parcel of the prevailing notion of distributed leadership. Consultation is not synonymous with collaboration in the distributed leadership sense (Mafora, 2011; Starr, in press (a)).

An overriding aspect of school leadership noted during the interviews in this study was the claim made by all school leaders about their commitment to the notion of 'quality' education, which required leadership from principals. Quality was not only seen as an outcome of leadership, but was often equated with 'excellence' (Peters & Waterman, 1982). For example:

Example and commitment come from the top. You can't expect people to do a good job if you are yourself not committed to 'excellence' in everything you do. (PF)

We put much emphasis on 'quality' or 'excellence' in all our school activities, in the classroom and in support functions, to ensure that the school experience of our students and their learning outcomes are in turn of the highest quality. (PC)

Principals stated that they acted as role models and led through their commitment to quality, and believed that they won the respect of their staff by 'walking the talk.' As one principal said:

As a [principal], I have to set the example or else I'm not a good leader. You have to do what you preach. ... I take initiatives and I lead by example ... I'm still teaching some classes, I play sports with students and sometimes I even coach them. It makes you feel valued, and more respected by others. (PB)

It is true that a leader has to motivate others through example but the example or role modelling could equally come from other people taking on informal leadership roles within their own spheres of influence (Deming, 1986, 2000; Bonstingl, 2001; Leithwood *et al.*, 2006). However, principal PB's statement suggests that s/he alone could be setting the rules of the game and that others had to be 'led' by him/her. S/he centred everything on himself/herself, thus exposing his/her conventional conception of the notion of leadership being a role rather than an integrated, relational and shared activity (Cunliffe, 2009; Starr, in press (a)).

Principals suggested that their commitment was in turn reflected on teachers', students' and other stakeholders' attitudes and work. The dedication of teachers was illustrated by such things as their willingness to present additional lessons to the students scheduled on top of their normal teaching programs. For example, they made the following comments:

If you are genuinely committed to your work and doing it to the best of your ability, this will be reflected in your staff and students and even parents. This is what happens here. (PB)

Many teachers in this school are prepared to help students during recess time or after school hours and all credit to them for being there when they are needed. I couldn't have asked for more in terms of their time. (PA)

Here again the principal of school *B* held the view that example must necessarily come from above and “be reflected” (*PB*) within the rest of the institution.

Principals also claimed that teachers and students perceived them as committed to the quality philosophy due to their visible involvement in students’ and staff activities. For example:

I give a helping hand to students with their projects and speeches. Students and teachers alike appreciate that. ... They can see through their own eyes that you are determined to making sure that the school is a provider of education of the highest quality. (*PC*)

You can’t just sit in your ‘ivory tower’ and expect things get done. You have to be a role model ... make yourself accessible, listen to staff, talk to them informally, and assist them in their professional development. ... People are usually grateful for what you do for them ... when you put at their disposal quality training programs so that at the end of the day they are equipped to deliver ... the quality outcomes sought. (*PE*)

These are very diplomatic responses. At first sight, principal *PC*’s comment suggests that staff members appreciate and support his/her vision of quality education but it is not enough to show that they have been convinced individually that the school leader’s intentions and actions are in their collective interest (González & Guillén, 2002; Perles, 2002). Moreover, it indicates the principal’s engagement in teaching and learning in peripheral ways, and not true engagement in teaching and learning in the traditional sense.

It has to be noted that, in a context of distributed leadership in a TQM scenario, commitment of teachers should go beyond the confines of the classroom. TQM is operationally defined as meeting or exceeding stakeholders’ expectations (Deming, 1986; 2000; Padhi, 2005). Teachers in the sampled schools were probably dedicated but they remained so within the limitations of the academic program within their classrooms.

The commitment of principals to their work was also reported as a reflection of their optimistic and collaborative attitudes which they believed had a positive impact on staff morale and motivation in their work. In theory, this corroborates with Nemec’s (2006) suggestion that a high level of optimism from the school leader may lead staff

to demonstrate a care and concern for each other that is self-perpetuating. The following comments illustrate their view:

Problems will always exist, but there must be a solution to every problem and if we [principal and teachers] all put our heads down to it, often we have done that, talk it through, we can turn things around and everybody is then happy to help each other. (PE)

We are always talking about what is good about this school and this makes this place very special for all of us ... there is a real feel-good factor that constantly motivates everybody to try harder. (PB)

These are hints that there might be collaboration at some levels in some schools in terms of problem solving. Note that the word ‘often’ in the first comment suggests this may not be a consistent approach.

There were also indications that principals remained committed to their job indicated through their resilience in the face of adversity. The following comments are illustrations of principals’ resilient attitudes in this study:

This school was so difficult to work in when I first arrived here seven years ago. I had to battle constantly with my staff, the children and their parents. I was just working so hard, I was not living ... to the detriment of my social and family life and my health ... but I ended up winning them all on my side. (PC)

When the intake has been relatively poorer, when natural calamities – cyclones and heavy downpours – occurred, when the H1N1 disease kept students away from school for days, my staff and I met to discuss and ensure proper continuous work was carried out, making good use of the internet to keep in touch with students and to provide online instruction and a special homework kit for students to work at home. We made sure [teachers] were also reachable by phone for any advice and explanations needed by students and their parents. ... In the end, there was not any major setback to our educational program and student outcomes at the end of the year were as expected, if not better. (PA)

In the first example, instead of putting the school’s stakeholders into the definition of a common vision, the principal seems to have forced his/her staff to follow his/her personal vision with the ultimate aim of “winning them all” (PC). This heroic vision



of the self-sacrificing leader captured in the comment is far from being in line with the notion of shared leadership as propounded by TQM.

The second comment is more inclined towards collaboration but it may not reflect an overall culture of shared leadership as such. It was only during special circumstances that the staff and principal came together and went over and above the call of duty to show their dedication and devise means to help pupils so as to sustain 'quality' results. Nevertheless, it is true that in this case the readiness of the staff to collaborate is an indication of institutional resilience and flexibility on the part of the principal.

Optimism and resilience were enhanced by the fact that staff were supportive of the school leaders. For most principals, such support came from the assistant principal while others appointed senior staff, such as the 'dean of studies', who shared their vision:

I am lucky to have an assistant who believes in the way I see and do things, and I can certainly trust him. *(PC)*

Of course, I appoint deans who I can trust and I know will support me. It makes my life so much easier. *(PA)*

In many statements, such as those above, principals tried to affirm their commitment to shared/distributed leadership practices. However, reading in between the lines, such practices are contrary to a genuinely collaborative approach. True distributive leadership should involve assimilating and integrating a diversity of opinions and visions but these principals did not seem to trust a large array of stakeholders within the school community. There was no readiness to move forward towards change that involved everyone's contribution towards a shared vision and involving decision-making, responsibility and accountability. Instead, cloning the principal's personal vision dominates through employment of like-minded, cooperative others. These principals placed more professional responsibility in the hands of those who would buy into their vision and believe in their own ways of "see[ing] and do[ing] things" *(PC)*. It was therefore again a vision imposed from above. This again signals a sentiment of their underlying autocratic, hierarchical leadership style which maintained their formal power and authority and served their own interests.

### *Teacher leadership*

The challenge to leadership in a TQM context is that of adopting a new philosophy (Table 2.2, Deming's Point 2) and all other associated processes and systems that ensure generating a 'quality' culture (Deming, 1986, 2000). From this perspective, distributed leadership in schools is a form of collective leadership characterised by multiple sources of influence and direction (Gronn, 2002; Spillane, Halverson & Diamond, 2004) rather than the sole reliance on formal leaders, thereby avoiding the limitations inherent in the traditional notion of leadership understood individually (Elmore, 2000; Gronn, 2008; Lambert, 2003). In particular, distributed leadership is pertinent to the instructional aspects of leadership (Elmore, 2000) and generates insight into the central role of 'teachers as leaders', thus having a considerable potential to leverage instructional improvement (Crowther *et al.*, 2002a, 2002b; Murphy & Datnow, 2003; Timperley, 2005). As Fullan (2003, p. xv) affirms, "[s]chool leadership is a collaborative enterprise." This implies that formal leaders have to empower and trust all stakeholders, especially teachers, and believe in their high levels of productivity and creativity, and that leadership can and should be evidenced in and exercised by many.

Principals claimed that they adopted a leadership style that legitimately empowered teachers, who are in better positions to make competent decisions about quality teaching and learning, bearing in mind their proximity to the students who are most affected by these decisions. The following comments illustrate their assertions:

You have to accept people's advice in areas where they are more expert than you.  
(PD)

Teachers are free to take their own decisions without interference by anybody. They are the ones who know best what is best for the students. (PA)

I'm not the one out there to teach, so it's only normal that I encourage teacher initiative and innovative practice to transform learning and learners. (PE)

While these quotes are indicative of some delegation of leadership responsibilities to teachers, they might just be saying that principals leave teaching responsibilities to the teachers. The freedom of action given to teachers could probably be limited to the classroom and teaching activity. Outside these confines, teachers might not be given the opportunities to lead or be actively involved in decision-making.

In this study, the instructional systems of Mauritian schools focused to a large extent, but not exclusively, on the preparation of students for examinations and academic outcomes. Teachers were expected to be experts in their subjects and skilled in their practice, as the following comments by principals suggest:

We demand that teachers are well trained and skilled and constantly examine the way their teaching assists learning for all students, with particular attention for those with the greatest needs. *(PA)*

These teachers have developed the most effective teaching methods and their teaching skills are rated as 'excellent'. *(PE)*

In this school, students are actively involved in the learning of their subjects, which means that 'spoon-feeding' is discouraged. *(PB)*

Teachers use a variety of teaching strategies and make the most of learning time. *(PC)*

Importantly, principals viewed teacher leadership as being focused on instructional approaches and the organisation of activities and experiences so that effective and authentic learning took place. In classroom practice, this meant that the process of teaching and learning and achievements in examinations would be emphasised equally, together with a focus on value addition and buying extra privilege. Here are some examples of statements made by principals:

We have high standards and high expectations of students, based on syllabus outcomes but which also reflect the rich purpose of the school, not just limited to academic outcomes. *(PF)*

Teachers challenge children in all areas of their development – physical, intellectual, social and spiritual – reflecting our values, so that they can engage actively with society and stand out of the crowd. *(PB)*

Heads of department and teachers are given the responsibility to develop collectively a program that will cater for individual differences through curriculum differentiation but, at the same time, provide real and meaningful learning experiences for all. *(PD)*

Some principals indicated that shared leadership promoted a strong sense of belonging among staff to their school community and was a key determinant of the motivation of teachers to collective action for whole-school success. This observation and perspective is consistent with research by Crowther *et al.* (2002a) which demonstrated the importance of schools creating the impetus for teachers to

take the lead and engage collaboratively and meaningfully in significant and challenging educational issues. Examples of principals' comments include the following:

Teachers do not feel excluded from decisions and ill-informed on important issues. When they share responsibilities and are involved in decision-making, it makes them feel valued and very much part of this big family and they therefore work better together for a common cause. (*PD*)

It (shared leadership) motivates people to participate in school improvement efforts and strengthens people's commitment to the school vision and goals. ... It develops trust and the capacity among staff to share my vision for the school. (*PF*)

However, there was a general feeling during the interviews that principals could not provide concrete examples of how they invited or enabled teachers in the processes and actions of shared leadership. For example, in the quest for quality education, "curriculum must be the product of effective negotiation and teachers must be empowered with a leading role in negotiation processes. Furthermore, such negotiation should provide space to contest knowledge as well as recognise and respond to the wisdom, discernment and distinguishing expertise of the teaching profession" (Bruniges, 2005, p. 11). No such evidence of teacher leadership was found in principals' commentary, let alone actual practice in their schools, even when pressed for further elaboration. On the contrary, use of the words 'my vision' in principal *PF*'s above statement is a further indication of his/her tendency to adopt an autocratic leadership style. It seems, therefore, that leadership was traditional and hierarchical, with little real autonomy for teachers except in the confines of their own classrooms.

Nevertheless, principals in this study generally gave their support, at least in theory, for the notion of distributed leadership. The reasons commonly given were those of collective action based on ownership, commitment and shared responsibilities, rather than heroic individual struggles. These are encapsulated in comments such as:

You cannot be on top of them (teachers). You have to be in the middle of them and share your vision, and make it accepted in a democratic way so that they feel they have ownership of it and they will therefore be more inclined to be committed to that vision. (*PA*)

We empower all staff to make decisions and even hold them accountable for exercising initiatives aligned with the school's common mission or educational purpose. ... The idea is to give staff a sense that they have a real say in things that matter to them and that affect them most. (*PF*)

There is room for strong individual initiative, but we would prefer to have a sense of collaborative staff efficacy and competence in accord with shared leadership for school development that lead to continuous improvement. (*PD*)

Despite the principals' persistent claim about their adherence to a distributed leadership style, their comments such as those above and others reveal major contradictions to a genuinely collaborative approach. Principal *PA* is trying to say that a formal school leader has to be seen to be part of the team, not separate or distant from it. S/he seems to be supporting Bezzina and Vidoni's (2006, p. 15) view that "[t]oday's leader has to be visible – to be seen to be believed" but the reference made in the comment to "your vision" (*PA*) makes it sound like the vision is actually his/hers. On the other hand, principal *PF* seems to be arguing that distributed leadership and a sense of equality or teamwork means shared accountability but fails to conceal his/her position as a formal leadership figure in charge when s/he states: "We ... even hold them accountable ..." (*PF*). In the case of principal *PD*, s/he merely gives us here a hint that shared leadership is what s/he would "prefer to have" but there is no evidence to suggest that it corroborates with his/her actual practice.

Paradoxically, power was perceived to reside mostly in those entrusted with the formal leadership position. Some principals even explicitly contradicted themselves by expressing the fact that they had the ultimate control of the system. Some comments along these lines were:

The heads of department are presently more involved in decision-making than before. Teachers are also involved in decision-making, but they have to be careful not to go beyond the limits. (*PC*)

There is a fixed system of committees involving teachers, students and parents. The committees plan and take collective decisions and this participation creates a feeling that everybody owns the school. ... In the end, I still exercise control over the situation and, therefore, I have the final say. (*PF*)

A system of committees is used to make decisions up to a certain level. Those committees are self-managing work teams, which provides for the empowerment of people. (*PE*)

By now, it is obvious that these principals could not have made it any clearer that they were allowing delegation of decision-making responsibilities within “limits” (*PC*) or “up to a certain level” (*PE*), and that they “still exercise control ... and ... have the final say” (*PF*). Such positions could have been taken by principals to give a certain structure to the prevailing leadership system, but they potentially undermine a feeling of collaborative endeavour and are barriers to a truly distributed leadership culture (Starr, in press (a)). They could also engender an atmosphere of constant fear and undermine trusting relationships among staff which prevent them from taking risks and being innovative in the pursuit of quality (Deming, 1986, 2000). Above all, they are indicative of the absence of shared accountability. Distributed leadership is precisely about shared decision-making, shared responsibility and shared accountability (Starr, in press (a)). There were many slippages by principals in rhetoric and action evidenced here and in various other instances in the transcripts. Hence, it can be concluded that the ultimate power or authority actually resided in the principals’ own hands as formal leadership figures and that leadership was far from being distributed.

### **5.2.2 *Ethical/moral leadership***

Most authors (e.g. Bonstingl, 2001; Deming, 2000; Mukhopadhyay, 2005; Sallis, 2002) agree that ‘management commitment’ and ‘leadership’ are indispensable elements in successfully implementing TQM as a change program. However, commitment and leadership are not synonymous terms. To understand the distinction, it is necessary to consider the ethical dimension of leadership. While committed managers may pursue quality using exclusively their formal power or authority, leaders generate interpersonal influences and trust beyond the scope of power to promote and sustain deep organisational changes (González & Guillén, 2002; Perles, 2002). Thus TQM organisations move forward by distributing leadership at all levels and, equally importantly, by focusing on ethical/moral leadership whereby leadership practices are underpinned by the values and ethics of

the leaders themselves (Bush & Glover, 2003; Duignan, 2005, 2007; Fullan, 2003; Mukhopadhyay, 2005; Sergiovanni, 2006; Starratt, 2004).

### *Values*

Quality cannot be managed successfully without focusing explicitly on moral values because “we need trust from, and moral concern for, the people involved” (Fisscher & Nijhof, 2005, p. 157). Moccia (2008) identifies the ‘primary’ or personal values of love, honesty, justice, peace, initiative, competence, vision, humility and formality, of leaders in the organisation as representing the necessary facilitating elements in order to stimulate stakeholders’ motivation in implementing TQM programs effectively, through two mediating variables: passion and trust. Similarly, Padhi (n.d.) argues that TQM is built on a foundation of ethics, integrity and trust which are the key to unlocking the ultimate potential of TQM, with each element offering something different to the TQM philosophy. In particular, according to Padhi (n.d.), integrity implies honesty, morals, values, fairness, and adherence to the facts and sincerity, and is what stakeholders expect and deserve to receive. She goes on to affirm that people see the opposite of integrity as ‘duplicity’ and that TQM will not work in an atmosphere of duplicity.

In this study, it seems that the values and ethical imperative of Mauritian principals underpinned their vision for their school and shaped their behaviours in their daily professional lives. They all voiced a concern for the integral development of all the students placed in their care. For example:

We care for the integral development of all children because we want them to be able to stand on their own feet and be equipped to face the world of work and life after school. ... All educational programmes and activities are designed in the best interest of the child. Teachers and parents play a key part in our mission but sometimes they may not be pleased with our decisions because these decisions are centred on students, who are our priority. *(PE)*

We value the principle of student-centred education and the realisation of each child’s potential with the ultimate aim of producing a balanced person. Children have to be developed in all domains: academic, sports, creative arts, debating skills, and so on. *(PD)*

However, the very definition of the term ‘integral development’ was of a limited perspective. In the educational context in which Mauritian primary schools operate, the rat race inherent in the rote-learning and examination-centred educational system does not provide much scope for the integral development of the child; it limits a majority of children while extending only those in ‘star’ schools. Thus, it is conceivable that some principals have been over-enthusiastic about their outlooks, which may have resulted in their complacent responses so as to uphold their own reputation and that of their schools. Their comments reveal some contradictions and instances of self-interest. For instance, the use of the collective ‘our’ in the term “our decisions” (*PE*) in the first quote presupposes that teachers may not be included in the decision-making processes of principal *PE*. On the other hand, it has to be acknowledged that principal *PD*’s comment in the second quote is more inclusive of his staff as part of the leadership process and that s/he shows awareness of the need to cater for multiple intelligences (Gardner, 1983).

Underlying such concern for the full human development of the child is the notion that students have multiple intelligences and abilities that should be constantly and fully developed (Gardner, 1983), which Mauritian principals in this study seems to adhere to, in theory at least, as the following comment suggests:

We do not just emphasise the development of logical intelligence and linguistic intelligence. It is true that many students function well in this environment, but there are those who do not. ... Students will be better served by a broader vision of education, whereby teachers use different methodologies and activities to reach all students, not just those who are good in linguistics or logic. (*PA*)

If this is so, then it is intriguing to understand why school leaders and central education authorities in Mauritius persist with the ‘star school system.’

Another principal said:

We have to acknowledge that students have multiple intelligences, not just a few at which they excel naturally. For example, there are [students] whose base intelligence is musical, others who are good at spacial judgments, etc. but we have to aim at developing all these areas. (*PD*)

Again, the commentary seems more of the domain of discourse than a real practical approach. However, there was no evidence gathered that could suggest the kind of



tools and facilities schools were proposing or making available to encourage such ‘intelligences’ to grow. By saying “we have to aim at ...” (*PD*), the principal *PD* could well have been referring to what has to be done rather than what the staff of his/her school actually do at their levels.

When asked about their beliefs about the underlying purposes of education, the most common reactions referred to producing ‘good’ citizens. For example:

We consider it our main aim to educate the child so as to make the child a proper and good citizen and a person who can fit into society. The aim for them is to be productive in society. (*PA*)

Preparation for good citizenship also involves teaching those principles to the students that will enable them to take a responsible position in society when they leave school to give their best in their chosen field or career and to reach the top. (*PC*)

It is true that the school is a social institution but the definition of a full-fledged human being goes far beyond good citizenship or good labour force only. The aims of the school should be to help in the complete development of the child as an individual and as a member of a community, nation and global society. It would have been desirable if principals *PA* and *PC*, whose quotes are referred to above, could adhere to such current notions. Nevertheless, their comments also reflected principals’ encouragement for striving for excellence (or working to the best of one’s ability).

Furthermore, it has to be noted that these limited assumptions by Mauritian principals about the purposes of schooling may be very ‘utilitarian’ views of education, where the child is expected to fit into an economic system and to conform to it, which would not be accepted as a ‘quality’ position by many researchers. For example, Hansen (1997, p. 118) believes that “[a]n effective balance between an academic and utilitarian curriculum might ensure that a broader set of human development principles drives the curriculum in schools, human development principles that are congruent with the egalitarian purposes of schooling.”

- *Relational values of 'trust', 'respect' and 'fairness'*

All principals interviewed implied that they possessed a capacity for promoting relational values for staff and students alike, namely, mutual trust, respect for the dignity and worth of others, and fairness, in varied situations. For instance:

In staff meetings, I make sure that teachers' opinions are expressed and taken into account in a respectful way. (*PE*)

I try not to allow one person or a particular group to dominate the meeting, but rather ensure that everyone has an opportunity to share his or her ideas in a productive way. (*PF*)

Trust in people is an important value. I trust people to make decisions. ... I wouldn't interfere in classrooms. At the same time, there is a strong bonding among the teachers. (*PA*)

It is important that we create the conditions that care for all people in our school community. It has to be a place where children and teachers alike look forward to come, where they feel trusted, respected, happy and safe. (*PB*)

Yet again, the conventional relationship of the 'leader' and the 'led' seems apparent in principal *PE*'s comment. Principal *PE* himself 'takes into account' and 'respects' the opinions of the teachers but s/he fails to state whether these views affect decision-making. So far as principal *PF* is concerned, s/he appears to act as a group coordinator but s/he is self-appointed which means that s/he may have the choice prerogative. While there may be opportunities for sharing of ideas, the principal appears to control the meetings. In the case of principal *PA*, however, there seems to be greater overture and freedom given to the staff to team together and to operate on the basis of trust. Principal *PA* has an approach that appears to cater more for individual differences and is more ethics or moral based. The statement suggests that s/he is more prone towards distributing leadership and shared responsibilities. Principal *PB* on his/her part seems caring and considerate towards his staff but s/he still has a kind of paternalistic/parental approach that comes out especially when s/he talks about 'safety'. There is, however, again the feeling that s/he uses 'we' in discourse but not in practice.

The participating principals also acknowledged the necessity to model the relational values they wished to instil in students. This is captured in the following comments:

If we expect the students to treat us with respect and fairness, then it's only normal that we do the same to them. (PC)

When children see adults interacting in a civilised manner, respecting each other treating them fairly, we are modelling the behaviour we wish them to emulate. (PE)

Such a focus by principals on relational values was seen by principals to have a positive impact on the school community. For example, principals stated:

In this school, teachers and students feel appreciated and valued for who they are. The people work together as one big family, which means that students are well accepted in the school and there is a sense of togetherness. ... there is a spirit among students helping each other towards academic achievement. (PC)

The staff know they are trusted 'from the top' to do a good job. People here form part of a big family, there is a lot of sharing of good practice amongst teachers. ... This sense of belonging is also reflected by the students' pride in their school uniforms, which reflect values like potential, talent, hard work and dedication. (PD)

In this last quote, there is a strong sense of the principal's conservative attitudes as demonstrated by his overtly expressed traditional symbols of 'pride.' This again reflects principals' general conservative leadership style in this study.

Duignan *et al.* (2003) and Starr (in press (a)) both assert that leadership challenges currently faced by school principals are complex, multidimensional and even contradictory, thereby creating uncertainty and confusion for many leaders. Thus, there is a need for an important shift in the meaning, perspective and scope (depth and breadth) of leadership in contemporary organisations so as to build a culture of shared leadership, that promotes, nurtures and supports the 'leader' (a figurehead – a noun) and 'leadership' (the act of leading – a verb) throughout the organisation (Cunliffe, 2009; Starr, in press (a)). In this context, it could be argued that the preceding two comments are more suggestive of a distributed, collaborative view of leadership. However, when reference is being made by principals to the school as being a 'family,' it could very well suggest the paternalistic tradition so common in Mauritius, where the father is usually the decision-maker and the other members of the family are the followers.

- *Values of 'love' and 'care'*

For some principals interviewed, these values were perceived as their faith in action, corroborating with research findings by Day *et al.* (2000); that is, a work of love and care for the full human development of students, grounded in the teachings of the Church and at the service of society, which are expressed overtly in principals' daily work and ethos of the school, and reflected in teaching and learning. As principals in Catholic schools described:

We give a spiritual dimension to the students' education. We make the teachings of Christ explicit and evident in our everyday activities. (PA)

Prayer time during the morning assembly is an excellent way to start the day. ... We also have religious education classes when Gospel values are taught. Our belief in God is reflected in our teaching, our policies and practice. (PB)

Pastoral responsibilities of teachers include providing a holistic approach to addressing the spiritual needs of every child, whether these come from a faith or non-faith perspective. (PD)

Interestingly, the values of principals as their faith translated in action was a characteristic that was not confined solely to Catholic schools in this study. For example, principals in state schools said:

We deliver a quality moral and human values education program. (PC)

Our approach to pastoral care in this school has nothing to do with religion ... it involves attending to the mental and physical welfare of these children ... the social and emotional aspects of learning within normal classes. (PF)

- *Value of 'social justice'*

Building an inclusive and caring school community, based on the value of social justice, also featured strongly in the interviews, as the following comments suggest:

I do whatever I can to make all students and teachers feel important and cared for within this big family, without regard to social class, sex, race or whatsoever. (PA)

Here we care for all our children ... not only the high performers but also for less fortunate in life ... it means so much to them. (PB)

I support the notion of the school as an extension of the family. Teachers get to know each other better and the individual needs of students are catered for. As a result, students develop a sense of belonging and feel more comfortable, teachers are more satisfied and parents experience the school as a caring place. *(PF)*

We welcome and serve children from all walks of life: the poor, the socially disadvantaged and others most in need. Everybody has a place here. *(PC)*

We make sure that our policies and teaching practices reflect the principles of social justice and equal opportunities. *(PE)*

Thus, most schools in this study tended to be inviting as they embraced the diversity of people and cultures and endeavoured to reach out particularly to those most in need. This important finding within the Mauritian context is congruent with what Duignan (2005) refers to as ‘socially responsible’ leadership and educational practices in schools that model a more just and democratic society.

However, given that the above comments are from principals of ‘star’ schools, there are also inherent contradictions that can be detected here. In any case, in a multiracial country, these schools do not have a choice other than to be inclusive and inviting. What these principals’ statements suggest is that social justice is about a welcoming school environment that cares for all students with the aim of dispensing ‘quality’ education to one and all alike with a view to achieving quality outcomes across the board and to build a characteristic ethos typical of the institution. This says a lot because principals in Mauritius generally function in and tolerate a highly divisive, segregatory ‘star schools system.’ This might actually mean that their theory and actions are contradictory because the Mauritian reality is different from what they tend to say. This being so, the extent to which they claim that they put into practice what they believe and/or preach is very much debatable. The majority of Mauritian students would not make it to the few ‘star’ schools that exist.

However, some principals complained of the personal cost and effort involved in adhering to the principles of a caring and inclusive community although they also clearly saw the good in such practices. The breadth of concern is captured in the following comments:

Sometimes it is such a battle with staff, students and their parents ... but at the end of the day you get so much personal satisfaction that you forget about what you have to endure to keep this school on track. (PC)

This is not an easy job at all and I sometimes wonder if it's worth the pay ... [but] I remain committed to my calling. ... Everything I do is in the best interest of these children. (PE)

In the second comment, the use of the word 'calling' indicates that principal PE views his job as a 'vocation,' perhaps decided by God. However, in both of the above comments, pastoral care does not seem to be an integral part of education; it was a "battle" (PC) and they were rather forced to do it for they question whether their job was "worth the pay" (PE). In particular, it seems that principal PE viewed his/her responsibility separately from the rest of the school – s/he brought authority and responsibility down to himself/herself and did not seem to distribute leadership; s/he appears to operate by fighting to set the right example despite the odds. None of these principals appear to be taking on leadership as a systemic issue and their notions of social justice, equity, democracy and distributed leadership were very conservative, weakly supported and focused only on one school.

- *Value of 'excellence'*

Unsurprisingly, in these high-performing schools, the pursuit of excellence was valued strongly in the interviews. Principals made it their key responsibility to seek the very best outcomes, albeit mostly academic outcomes, for students by ensuring the highest quality of learning for both staff and students in an ethos of high expectations and strong support. Principals were eager to point out the following:

We hold high expectations of students and teachers, with a persistent focus on learning outcomes for students. (PA)

We are always allowing teachers a fair go at experimenting new teaching methods and styles because they have to aim for their personal best for the benefit of all students. We have very high expectations of students and teachers alike. (PE)

We support continuous staff development and expect all teachers to be involved. ... We provide staff with access to appropriate professional training and personal development opportunities. (PB)

It is clear that all the above comments aim towards high performance but how far teachers are really allowed to experiment is questionable, especially given the high performance pressures which is characteristic of star schools. At the same time, in this culture of high expectations, principals recognised the need for responding to students' ability differences and for providing educational approaches tailored to their individual needs. The following comments reveal overt and covert examples of principals' high expectations:

We expect all students to achieve their personal best and for ongoing instruction to recognise where students are and engage them in learning using multiple approaches and supports to move to the next level. It's only fair that we develop understandings and capacities to cater simultaneously for the specific needs of all students. *(PC)*

I would consider a student to be successful if she were making progress and meeting learning goals. Here, we have very different expectations of highly gifted students and average students in, say, mathematics class though they may be working on similar content in that class. *(PA)*

We strive to create instructional environments that support personal best and just right learning challenges without segregating students by ability or any other variables. This is in line with our policy to promote a spirit of welcome and inclusion within the school. *(PD)*

But again these comments seem to have an inherent contradiction because star or high performing schools have to carry the burden of good performance perpetually on their shoulders and they work in the direction of high academic performance. Moreover, with reference to the last comment, it has to be noted that students are already segregated by virtue of their being in 'star' schools. Principals therefore abide by the notion of equity and equality of treatment in theory only. They do not really have the means and the structure to cater for individual demands. Thus, they cannot really tailor their approaches to the needs of the individual students as they tend to state.

Most principals interviewed perceived discipline and hard work on the part of both students and teachers as prerequisite conditions in order to be able to strive for and achieve excellence and meet high expectations at all times. For example, principals said:

We view discipline as instrumental to excellent academic performance. ... there is no learning without discipline. *(PA)*

Hard work and discipline are the main reasons why our students perform well academically and even in other school activities. *(PB)*

The aim with discipline is to create an atmosphere in which order prevails. Order is conducive to effective learning, but also to high performance in sport and cultural activities. *(PE)*

It can be presumed from these and other comments that principals were referring to a school culture dominated by rules and obedience. This can be detrimental to empowerment and lead to excess conformity, which is not in line with truly distributive leadership. Given the nature of the Mauritian educational system, there was general agreement by principals that the highest priority and the core business of schools was the academic development of the child whilst other domains were relegated to less important status. The following quote further exemplifies the point made:

We aim to make students achieve very good grades when they leave the school. Extra-curricular activities such as sports and speech competitions are bonuses ... but for the school to remain competitive, we also need to ensure excellent performance in non-academic disciplines, otherwise demand for your school will decrease. *(PB)*

The overriding focus of schools in the Mauritian study was on setting high academic standards and supporting learning, but other domains were used mainly to enhance the school's reputation and marketing potential. Thus schools want to retain their market share and attract new students and their parents and are in a competitive market for enrolments. However, this is in direct opposition to the TQM tenet that focuses on external networks and that privileges cooperation, rather than competition (Deming, 1986, 2000).

Although high academic standards were set, it also meant that reasonable targets were set for student achievement. Principals remarked:

It is not expected of students to perform well at all cost, but to produce results that are in accordance with their potential. This means that it is not required of a student to be a '90% performer' but 'just to give your best'. *(PE)*

Every child can be challenged, supported and valued for who they are. *(PC)*



Some schools seemed to put aside the idea of meeting grade level expectations and focused instead on helping each child move to the next level of their learning, thus reinforcing the values of ‘inclusiveness’, ‘care’ and ‘personal excellence’ and the ethic of ‘authenticity’, found earlier, which underpinned school leadership, albeit within an ‘exclusive’, elitist system. This was evidenced by principals’ comments such as:

We don’t have the moral right to leave any child behind. We take children where they are, help them move to the next level, without segregating or grouping them based on ability. (PF)

You must simply forget the idea that children have to be grouped by some presumed ability for teaching to work. Teachers must be committed to teaching children with mixed abilities together and look for opportunities for ‘multilevel’ teaching. You find what you look for. (PB)

It can be concluded that a strong sense of academic mission and engagement was a central feature of the high-performing Mauritian schools in this study. The responses of the participating principals point to an unequivocal, though not unique, commitment to academic performance and results as a key driver behind their strategic planning. This also concurs with the learning-centred approach of effective schools found across contexts, whereby effective schools emphasise academic goals as their most important task (Chapman *et al.*, 2004; Fertig, 2000; Taylor, 2002). It is a noteworthy observation that none of the principals interviewed mentioned the fact that some students miss out in the Mauritian educational system.

### ***Ethics***

To reiterate Padhi’s (n.d.) assertion, TQM is built on a foundation of ethics, integrity and trust. She believes that trust is a by-product of integrity and ethical conduct. For Deming (1986, 2000), it is imperative to drive out fear and build trust (Table 2.2, Deming’s Point 8) if teachers are to grow, experiment, be motivated, work more effectively, and continually improve their professional practice. A school climate must be created that is aimed at changed processes and results reflecting shared power and responsibilities, shared rewards, shared accountability for improvement devised by participants, effective communication channels, mutual trust and respect (Bonstingl, 2001). Teachers and other stakeholders need to trust in the principal’s

fairness and in his/her intention to preserve their interests, thus highlighting the importance of the ethical dimension of leadership in the successful implementation of TQM tenets in schools in deep and sustainable ways (González & Guillén, 2002; Perles, 2002).

Hereunder, Starratt's (2004) insightful ethical leadership framework for the professional development and capacity building of teachers based on the ethics of *authenticity*, *responsibility* and *presence* (see section 2.5.1) is used as a lens through which the ethical or moral principles underpinning school leaders practices are analysed. In sum, Starratt's three types of ethics urge principals to be more fully aware of and present to the transformational potential in student learning. They challenge principals to attend to the wholeness of teachers in building teacher capacity in schools by being more proactively responsible for supporting and enabling teachers to create a humane and caring school community that encourages deeper, authentic dimensions of learning (Bredeson, 2005).

- *Ethic of 'authenticity'*

In this study, principals believed that they were demonstrating their adherence to the ethic of authenticity by acting and challenging others to act in truth and integrity in all their interactions as school leaders, teachers and human beings. The following comments indicate that they were promoting a school culture that fostered relational values and encouraged learning that has real meaning and purpose:

Teaching and learning must connect with the real life and real concerns of the students. If they cannot see what's the link with reality, then they will see no point in learning these stuff. (PD)

I encourage my staff and students to engage with each other in interpersonal relationships that are truly reciprocal and genuine (PE).

In this school, we seek to make a positive difference in the lives of all members of the school community. (PB)

Yet, it is questionable how much scope there is in the local context for such a kind of education since the focus is almost invariably on examinations and rote learning. As demonstrated in Chapter 1, the Mauritian system of education itself hardly provides for the kind of learning stated by the principals above.

Some principals interviewed also expressed the idea that they were challenging teaching and learning practices which are hollow, meaningless or, in Starratt's (2004) term, 'inauthentic.' For example:

One day, a student said to me that: "in mathematics, you don't understand things but you just get used to them." I thought that I had to challenge his teacher and went to have a quiet talk with her. (PA)

Real learning must take place. Teachers cannot just teach to the tests. I require integrity and authenticity in all my staff in the discharge of their duties and I will confront those who do not do comply with this principle. (PC)

However, it seems that principals here adopt a very authoritarian and autocratic leadership style, confirming a point made earlier. These principals seem to view the ethic of authenticity too as their own preserves to be imposed on the staff, thus functioning primarily as controllers of performance which, indeed, is in total contradiction to the very ethic of authenticity. The comment of principal PC specifically indicates that s/he positions himself/herself as being authentic and will 'confront' those who are not. Though all the principals above do try to express their authenticity and beliefs in their teachers, they do not seem to respect or affirm how teachers construct authenticity in their lives and professional work (Bredeson, 2005). They rather seem to position themselves as justice dispensers against teachers when they should actually think of teachers as human beings and appreciate and affirm their uniqueness and needs in an atmosphere of trust, while focused on building individual and collective capacity through professional development (Bredeson, 2005).

- *Ethic of 'responsibility'*

At first sight, the leadership of principals in this study also seems to be underpinned by the ethic of responsibility, with each principal being responsible in different ways and on different issues. Principals' comments, listed below, suggest they felt a primary responsibility, as leaders and educators, for their own actions and for the authenticity of the learning of students in their schools:

I am the one responsible for promoting the learning and practice of virtue for all students and teachers. (PA)

Ultimately, I have to take responsibility for the quality of the learning outcomes of all students. (*PD*)

I am responsible for creating and sustaining authentic working relationships among all stakeholders. (*PE*)

It is my responsibility to create and sustain a healthy environment, conducive for teaching and learning, for all teachers and students. (*PD*)

I also try to cultivate in this school the habits of self-responsibility among teachers and also students. (*PA*)

The responding principals appear to be responsible or accountable to themselves and to the people making the decisions related to that learning. Yet, there did not seem to be a culture of corporate responsibility as related to distributed leadership. Note again that the frequent use of ‘I’ in principals’ comments reveals a tension between their ethic of responsibility and a collaborative leadership approach, which is contradictory evidence within rhetoric and behaviours. These comments also expose arrogant assumptions by Mauritian school leaders participating in this study in the sense of them knowing best or perceiving themselves as faultless. They considered themselves alone as leaders in their respective schools and therefore as responsible and role models. It is important to keep a sense of humility and modesty in serving others rather than taking a ‘know-it-all’ attitude (Sentočnik & Rupar, 2009). It should however be borne in mind again that these principals are the ones accountable to the government authorities when it comes to school learning outcomes.

In contrast, there were comments made by principals which underpinned a more democratic stance in terms of their ethic of responsibility. As some hinted:

We have to create a culture of mutual accountability for the core values and practices of the school. (*PC*)

This school builds a culture of shared accountability for the core values of the school. (*PB*)

Here, reference is made to ‘mutual accountability’ and ‘shared accountability’. But notice that the way principal *PC* addresses the issue is rather indicative of him/her saying ‘what ought to be’ and not ‘what is’.

- *Ethic of 'presence'*

Different schools leaders in this study appeared to be manifesting their ethic of presence in different ways, as suggested by Starratt (2004): an 'affirming' presence, a 'critical' presence, and an 'enabling' presence. Some principals generally indicated an affirming presence to teachers in the form of clear messages to them that they were valued, encouraged, and would not be judged or sanctioned as they made themselves vulnerable to new learning and took risks to experience novel teaching practices. For example, one principal stated:

Students have to be supported in every possible way and we also have to acknowledge the crucial contribution of teachers in their achievements. ... Teachers know that we are backing them. (*PE*)

Yet, this principal hardly gives hint about the kind of support that s/he gives to the teachers in his/her school. S/he assumes that the teachers know that they are being supported but s/he does not appear to talk about his/her own presence and the symbiosis that s/he manages to create between himself/herself, staff and students.

Another principal said:

We encourage teachers to experience new approaches to teaching and learning, and we guarantee them that there will not be any consequences for failing. The aim is to learn from failure, if any, and to learn continuously. (*PC*)

This principal seems to be supportive of his/her staff and to vet their approaches but there is still an absence of the strong bond of support and 'unification' that this ethic suggests. How school leaders support and empower teachers in their duties is more of the domain of 'professional learning,' which will be discussed in section 5.6.

Principals' critical presence meant that they were being there to acknowledge teachers' authentic and understandable negative reactions to professional development in the course of building teacher capacity, to contribute to reduce such resistance to change, and also to challenge injustice and ensure that unfair expectations and demands on teachers are not made. Some indicative comments were:

I think I have to provide an empathic ear to people's worries and concerns – why they believe any change or innovation would impact on them negatively – and communicate clearly to them to overcome their resistance to change. (*PB*)

I will not hesitate to take a public position on issues of injustice and inequity, even if it is an unpopular decision. ... For example, 'merit pay' for teachers is simply not acceptable; it means that teachers will be competing against each other instead of collaborating and sharing good practice. (*PD*)

Principal *PD* seems to be hinting towards the collaborative rather than the competitive in his/her above comment. However, there was no evidence whatsoever suggesting that any of the principals interviewed were showing real leadership in the sense of speaking out against the system, asking the difficult questions or leading debate that might have been controversial or that might have lead to policy questioning. Arguably, these principals were focused only on what happens in their schools, not about the Mauritian education system generally. In the present educational context in Mauritius, real educational leadership would be for principals and teachers to call the 'star-school system' into question as an issue of social injustice, for example. TQM is about grassroots decision-making for improvement in education and beyond.

A critical presence by principals also meant leading at the forefront by example, albeit uncovering their somewhat traditional, hierarchical, 'heroic' leadership inclination, while showing their human side in interpersonal relationships with staff. This is illustrated in the next quote, which also shows some other qualities of the principal such as respect, principal's approachability, team building and acknowledgement:

It would be a nice gesture from me to put a 'thank you' note on the notice board in the staff room, but it would be so much more meaningful to others if I were to do that in person, in a staff meeting for example. (*PA*)

Principals' enabling presence is supposed to be more proactive in the sense that they should be directly involved with teachers in ways that are truly open and engaging to build specific capabilities (knowledge, skills), for example, by looking at research-based exemplary practices that might be usefully adapted in their own context, and

aimed at authentic teaching and learning of students. The participating principals attempted to demonstrate their enabling presence in comments such as:

Teachers have to be encouraged in increased participation in the life of the school, in the organisation of the annual fancy-fair, sports day, open day for parents, etc. This is an effective way to team building. *(PE)*

We have to respond to opportunities for professional and personal development of our staff. There are academic courses that our teachers attend at the MIE (Mauritius Institute of Education) and there are others that are organised by the BEC (Bureau of Catholic Education) either in-house or at the BEC office, for example, courses on child psychology, human values, MEd courses, etc. We certainly encourage our staff to engage themselves for their own benefit and for the benefit of our students. *(PA)*

I encourage and create opportunities for self-reflection, dialogue as well as group discussion among teachers, based on experience as well as new research in educational practice. *(PC)*

However, it has to be noted from these comments that principals did not ‘engage’ with teachers in capability building but simply ‘allowed’ them to pursue their own professional development as they deemed fit (see also section 5.6). While the above comments show that the principals were aware of the need for teacher empowerment and team building, these principals also showed reluctance or inability to demonstrate how they created such opportunities, let alone how they shared leadership with the teachers in actual practice. This tendency towards theoretical discourse as against practical reality yet again seems apparent.

### **5.2.3 Leadership sustainability**

The TQM theorist, Mukhopadhyay (2005, p. 140), asserts that “[i]t is a common experience that under the same set of rules and regulations, with the same set of teaching and non-teaching staff, and with students from similar backgrounds, an educational institution degenerates or maintains the status quo, or rises to prominence with a change of principal” (Mukhopadhyay, 2005, p. 140). This is borne out by a burgeoning literature on leadership sustainability in education (e.g. Cunliffe, 2009; Davies, 2007; Hargreaves & Fink, 2003, 2004, 2006). In particular, Hargreaves and Fink (2003, p. 697) outline an ecological definition of sustainability

in educational change, comprising five important interrelated characteristics as follows:

- improvement that sustains learning, not merely change that alters schooling;
- improvement that endures over time;
- improvement that can be supported by available or achievable resources;
- improvement that doesn't impact negatively on the surrounding environment of other schools and systems;
- improvement that promotes ecological diversity and capacity throughout the educational and community environment.

In this ecological sense, Hargreaves and Fink (2003, p. 701) argue that:

[L]eaders develop sustainability by how they approach, commit to and protect deep learning in their schools; by how they sustain others to promote and support that learning; by how they sustain themselves in doing so, so that they can persist with their vision and avoid burning out; and by how they try to ensure the improvements they bring about last over time, especially after they themselves have gone.

They go on to look at three particular aspects of sustainable leadership that exemplify the five different components of sustainability (and non-sustainability) that they outline in their definition: distributed leadership, leading learning, and leadership succession, all of which are implicitly endorsed by the TQM paradigm.

The notion of distributed leadership at work in the selected Mauritian schools has been analysed in some details in the preceding sections. It suffices to reiterate here that in an increasingly complex, fast-paced and demanding world, leadership that rests on the shoulders of a few individuals is no longer sustainable (e.g. Duignan & Bezzina, 2006; Starr, in press (a)). Distributed leadership builds capacity and therefore aids sustainability and succession. The following paragraphs will therefore concentrate on the two other aspects that illustrate how principals in the sampled schools aimed at sustaining their work in what is an increasingly complex role.

School leaders have a prime responsibility to sustain learning. The principal's responsibility in *leading learning* is to make learning a priority in all school activities. The quotes below illustrate some principals' positions when faced with



demanding state policies that seem to undermine true learning or distract teachers' energies and attention away from it:

As from next year, the Government will introduce a national assessment examination in all subjects at Form 3 level. Form 3 students must pass it in order to remain in the academic stream, otherwise they will be put in the vocational stream. Such high stakes testing will encourage teachers to practice 'exam drilling' and teach to the test to deliver improved results 'on paper', but this will not necessary produce genuine or better learning. ... Teachers will have to remain committed to quality teaching and innovative in their own academic subjects while performing acceptably when the test comes around. (*PA*)

We have to use literacy and numeracy strategies that would benefit all students for life, and not just focus on manipulating the short-term scores on examinations. It is improvement in the long term that matter most. (*PC*)

Principal *PA*'s reasoning seems to be aligned with that of Hargreaves and Fink (2003): that coaching children for standard assessment tests may force teachers to deliver improved short-term results and the school may be considered successful, but that this does not necessary cause teachers to produce better learning. Instead of putting an enormous effort every year to boost results, a longer-term and more sustainable approach would be to promote deep learning approaches that develop an authentic learning culture in individuals and the school although this may contradict the state's own position on 'quality.'

In Chapter 1, mention was made that each year between 30% to 40% of primary students sitting for the national Certificate of Primary Education (CPE) examination fail and that those who are unsuccessful twice or are past the 12-year age limit for primary schooling but fail in the examination are provided with the opportunity to follow a three-year pre-vocational course at the secondary level with a specific, skills-based curriculum (Bessoondyal, 2005). With the introduction of the centrally controlled, formal assessment in Form 3 at the secondary level, a significant number of students will not complete their secondary schooling each year, and will subsequently obtain no further formal education. This means that early school leavers often miss out on the widely recognised and considerable benefits of education. Paradoxically, this goes a long way against the 'quality' education ideal

yearned for by Mauritian education authorities (MEHR, 2006a, 2006b; MESR, 2003).

The projected introduction of vocational education in schools and school-based apprenticeships are critical initiatives by central government aimed at increasing participation in education and training. However, the number of early school leavers indicates that curriculum needs to go further in order to ensure that it is relevant and applicable to the entire cohort. Therefore, rather than encouraging students to enter into an alternative form of employment, curriculum should provide students with a greater diversity of pathways to ensure that their interests are served and they are able to experience the life-long benefits of the later years of education. In a democratic society that prides itself on egalitarianism and ‘a fair go’ for all, there is surely a compelling need for equity of access and opportunity to education. Thus, one of the biggest challenges facing the Mauritian education authorities is how new reforms can bridge the gaps between the least successful and the most successful in the system.

Turning to *leadership succession*, it is to be noted that sustainable leadership does not disappear when leaders leave, but rather lasts beyond them so that their benefits are spread from one leader to the next (Hargreaves & Fink, 2003). In a ‘distributed’ leadership sense, this sentiment has repercussions throughout the organisation. When asked how leadership succession events can pose a threat to sustainable improvement, this is what a principal in a state school said:

The practice of rotating rotating rectors between state schools is common in Mauritius. But when [principals] come in and go every so often, this does not give you any continuity in the good work you have yourself initiated. Fortunately, I have been at this school for more than six years now, and I am dreading the possibility that I might get transferred to another school where I would have to start everything over from scratch and it would be such a waste of time. (PF)

Prima facie, this comment sounds much more focused on the self-interest of the principal than school improvement, albeit exposes a sense of pride in achievement. However, it does highlight a current reality in the Mauritian educational context (and elsewhere) that formal school leaders at the top of school hierarchies do not have the liberty to challenge (legal) decisions made by education authorities at the central,

systemic level. They have no other option than to abide by the ‘orders’ dispensed by policy makers and/or politicians in the upper echelons of the wider organisational hierarchy (Starr, in press (a), (b); Thomson, 2008), even if they also complain.

Nevertheless, this contrasts with the situation in private schools where principals are appointed for the long term, and principal rotation is not an issue. An example of ‘planned’ leadership succession occurred at one particular private school, again highlighting the importance of sustainability.

I worked as assistant [principal] with my predecessor for five years and when he retired, he recommended me to the BEC for his post. I guess he knew that my vision and set of beliefs were very much in line with his and he wanted to make sure that the transition would be as smooth as possible when he leaves ... I would perpetuate the way things are being done. (*PA*)

However, there is the risk that principals can stay for too long, and this becomes a serious concern in the event that the principal is not a ‘good’ leader. In the extreme scenario, it could lead to the perpetuation of ineffective, autocratic and undemocratic leadership practices. As Hargreaves and Fink (2003, p. 699) caution, “planned succession is one of the most neglected aspects of leadership theory and practice in our schools. Indeed, it is one of the most persistently missing pieces in the effort to secure the sustainability of school improvement.” Incidentally, the use of the words ‘I’ and ‘my’ by principal *PA* in the above quote could yet again be indicative of a lack of a collaborative approach and an embracement of traditional/conservative assumptions about leaders and leadership in Mauritian schools. The vision and its continuity rested with one person and an appointed ‘successor’ who has complied with this vision.

### **5.3 Focus on the stakeholder**

TQM is a holistic organisational approach to leadership, incorporating the minds and talents of all people at all levels and in all activities into the quality process (Bonstingl, 2001; Deming, 2000; Sallis, 2002; Mukhopadhyay, 2005). It implies the delegation of functions to the people closest to the customer/stakeholder because the stakeholder is the supreme judge of the quality of educational products and services (Deming, 1986, 2000; Oakland, 2003). It calls for empowerment of front-line

workers – students and teachers in the case of schools – to make decisions about how best to improve their work (Bonstingl, 2001; Lewis & Smith, 2006). TQM is therefore a people-focused leadership approach that aims to meet and exceed current and future stakeholder needs and expectations continuously, and also to optimise each individual's potential within the organisation (Deming, 2000; Ljungström & Klefsjö, 2002; Sallis, 2002). Thus the notion of distributed leadership endorsed by TQM could extend beyond teachers to students (Levin, 2000), parents and support staff and, when these have been the case, they have resulted in school improvement (Bolam, Stoll & Greenwood, 2007).

### **5.3.1 Teachers**

To be true to the TQM philosophy, quality education should start with a simplification of the school's organisational structure, focusing upon the persons closest to the students (i.e. teachers) as the most important facilitators of the students' learning experience (Bonstingl, 2001; Mukhopadhyay, 2005). However, research shows that while the quality of teaching has a powerful influence on student motivation and achievement, it is the quality of formal leadership structures that determines the motivation of teachers and the quality of teaching in the classroom (Fullan, 2007). This bears resonance with Deming's persistent assertion that 85% of all quality problems are leadership problems, that is, symptoms of a malfunctioning system (Brandt, 2003; Deming, 1986, 2000; West-Burnham, 1997), although this widely accepted theory is untested. Deming (1986, 2000) proposed his theory, which is backed by Juran (1999), to explain that most problems are the responsibility of leaders because they have created the system. Assuming Deming's theory is true, an overwhelming part (85%) of teachers' effectiveness is determined by the system and only minimally (15%) by their own skills, competence and commitment (Mukhopadhyay, 2005).

In the present study, principals' responses relating to empowerment of 'teachers as leaders' have already been analysed in section 5.2.1. Therefore, the discussion below will concentrate on the analysis of principals' current practices and perceptions of school leadership in terms of creating conditions for teachers' motivation, well-being and satisfaction.

Most principals interviewed tried to demonstrate a high level of empathy for their staff and acknowledged the demanding job teachers faced and seemed willing to provide helpful tips about how to manage aspects of their professional lives. One principal said:

Teaching is a very challenging job and, at times, I have to act as mentor to teachers, giving them useful pieces of advice about how to cope and about making the job as pleasurable as possible. (PC)

The school leader was mostly seen as a person and a professional as well as a principal who supported and cared about members of the school community. Recognition seemed to be consistent and publicly visible, which impacted on the development of a positive school ethos. For example:

One factor that affects staff well-being is the giving of recognition to staff members for high performance work. Teacher motivation and satisfaction depends on recognition. The recognition is primarily aimed at intrinsic motivation. We mention all achievements of teachers, praise them whenever the opportunity arises such as in the assembly and in prize-giving ceremonies. (PD)

I think the teachers here really feel valued and supported, and are given the confidence to perform. We don't just care for people; we make sure the caring is seen to be done, and it is not surprising that this translates through to the students. (PF)

It may seem a small acknowledgement, but it is a vital one to put a 'thank you' note on the staff notice board or to say it personally to [teachers]. ... it does make a difference to them, just to know that they are appreciated for the effort they have put in even if that's part of their normal work. (PB)

Some principals went to some lengths to promote good feelings in their schools. They demonstrated personal respect for staff and an interest about the life of staff beyond school, thus showing appreciation and acknowledgement and impacting positively on their morale and motivation. This confirms research findings such as those of Holmes (2005), and Starr and Oakley (2008). This also corroborates with a promising body of evidence about the benefits of 'positive emotionality' (Fredrickson *et al.*, 2000). Principals said:

For example, offering each female teacher a rose on Women's International Day, praising teachers and public acknowledgements of staff in the assembly and in parents' meetings are some ways to show how much they are appreciated. (PE)

I make it a must to know my staff, show concern for them and make them feel valued ... offer them birthday cards, and congratulation cards for the arrival of a newborn in their family, etc. ... If they are noticed and acknowledged, then this is reflected into the classroom (PC).

Principals who were able to show a human side were held in high esteem by staff (although “offering each female teacher a rose on Women’s International Day” (PE) could be viewed as being condescending). Principals appeared to build trust and encourage staff to take risks and become involved in school life beyond the classroom. This in turn seemed to foster a culture of inclusivity, as the following comment suggests:

Making a mistake or wrong judgement is normal but if you admit it and you try to rectify the situation, then you will earn the respect and acceptance of your staff and they will be more willing to give their best and go beyond the call of duty. They will in turn feel more accepted as valued members of the school community. (PC)

However, in some schools there was reluctance to single teachers out for recognition. The reason behind this was that the work done in school was viewed very much as a collaborative and collegial enterprise. This corresponds with the view that recognition not be given to those who come up with ‘successful solutions’ only, but to recognise participation in the process. In agreement with TQM parlance, the recognition of participation, not necessarily success, in the process is likely to optimise the contribution of staff members to the organisation as a whole (Mukhopadhyay, 2005). To make their point, principals stated:

When recognition is given for excellent Form 6 results, tribute is paid not only to Form 6 teachers, but to all teachers right from Form 1, because those results wouldn’t be possible without the teachers in the lower forms. (PA)

Our school is regarded as one big family working together, and so recognition of teachers takes place in an atmosphere of a family bonding such as an end-of-term social gathering or end-of-year party, where their contribution will be collectively acknowledged. (PC)

It can be concluded that, in this study, successful Mauritian schools were trying to maintain a safe and healthful work environment and a climate of staff support that contributed to the well-being, satisfaction and motivation of their staff.

Acknowledgement, recognition and involvement were reported by principals to be significant factors not only in the well-being of staff but also in their willingness to buy into the vision that was being presented and feel part of a trusted network in developing their school. These findings are consistent with the literature which suggests that achievements of students as well as teachers should be honoured publicly through high visibility within and outside the school (Bush & Glover, 2003; Langley *et al.*, 2009). Public recognition is described as a valuable tool for improving employee morale, self-interest and interest in TQM.

### 5.3.2 Students

The TQM literature in education supports the view that the students are regarded as the primary stakeholders of schools. Although all stakeholders are important, students should be the main ‘recipients’ or ‘beneficiaries’ of educational goods (Bonstingl, 2001; Sallis, 2002; Mukhopadhyay, 2005). If there is one single area of educational discourse where there is no dissent, it is that all school processes and operations should be pursued, above all, in the best interest of the students. In TQM parlance, it is hard to conceptualise a situation in which anything less than total quality is perceived as being appropriate or acceptable for the education of children. Schools need to develop an ethos that ensures the authentic learning and continuous transformation of students, catering for their holistic development far beyond just the intellectual aspect. This places moral and professional imperatives and a considerable burden on principals to ensure that school leadership and teaching and learning are operating to the highest possible standards (Sallis, 2002).

For some responding principals in this study, the students were considered the primary stakeholders, while for others students and parents were equally important stakeholders. For example:

The main stakeholders are them – the students. The reasons are because we always put their interests first, care for them and put in extra effort for them. (PD)

Our focus is mainly on the satisfaction of the students and parents: we take care of their interests equally. (PB)

In section 2.6.2, I argued that there were two primary views regarding the purpose of schools: creating workers who have skills and personal styles to fill and perform

available jobs versus developing children's capacity for personal achievement and contribution to society as an active citizen for democracy (Macaulay, 2009; Freeman, 2005; Hodgkinson, 2006). In this study, it was a notable finding that schools aimed to achieve both education for being a worker *and* for being an active citizen. Although schools did not have a formal mission statement, when asked to state the mission or purpose of their schools, principals typically identified their goals as those related to personal excellence and citizenship rather than limited to a narrow curriculum. Some examples of statements made by principals were:

We aim to empower students to become creative and productive citizens who use the knowledge, the skills and the desire for continuous learning. (PA)

We aim to provide a learning community that challenges all students to realise their full potential ... achievement of core academic skills, confident and effective thinkers and problem solvers, ethical participants in society. (PC)

We believe that students should complete school in full possession of skills, knowledge, and insights necessary for responsible, productive participation in society. (PE)

We prepare our students for responsible citizenship, sound character, lifelong learning, and productive employment through educational programs and activities which challenge and develop language literacy, mathematical proficiency, scientific competence, and social maturity. (PB)

These are quite serious statements made by the principals regarding their schools' commitment to personal excellence and citizenship. Of course, the problem is going from principals' stated goals of their schools and their actual practice, routines and behaviours because, too often, there is a great mismatch between the two, even when these goals are written in formal organisational mission or vision statements (Starr, in press (a)). Nevertheless, in this study, principals' responses suggested that children, starting at the youngest ages, were afforded numerous opportunities to learn the substantive skills of democracy and to become lifelong authentic learners. Such democratic processes in schools were reported to be manifested in many different ways. For example, students were said to be given the opportunity to gain knowledge with deep understanding and become creative thinkers and effective communicators:



Students learn how to apply their knowledge through active engagement in investigations relevant to a range of situations from life-related to pure theory [and] transfer thinking and reasoning to new situations. *(PC)*

Students understandings are enhanced by communicating their thinking and reasoning logically and clearly ... in ways that makes sense to themselves and to others. ... Students are creative as they think, reason and respond to opportunities to use their knowledge. *(PB)*

Students were perceived by principals to be leading and participating in classroom meetings to make decisions and be responsible for their own learning. Principals stated:

It is not unusual for students to exchange ideas with the teacher regarding choices in the classroom curriculum and to make decisions collectively. *(PA)*

Participation of students is encouraged by having 'less structure' in the classrooms and, therefore, there is a more relaxed and informal atmosphere conducive for learning. They take increasing responsibility for their actions and decisions. *(PF)*

It was thought that students were encouraged to be reflective and self-directed learners. This is evidenced by principals' comments such as:

Students are encouraged to work on their own, conduct research, develop an inquiring mind in order to discover things by themselves and are taught to think and have an opinion of their own. *(PE)*

Students are encouraged to draw own schemes to help them with the learning process and to take part in decisions regarding the selection of reading material and work. *(PD)*

The teaching methodology is not aimed at spoon-feeding, but the nature of assignments require students to collaborate, plan, organise, evaluate and manage their thinking and reasoning and apply appropriate knowledge to different situations. *(PC)*

Students seemed to be given opportunities to develop class rules and resolve conflict collaboratively with the support of teachers and others. For instance:

It is nice to note that students have developed their own unwritten rules such as 'if you want to achieve something, you have to work hard for it' and 'once you have started you don't give up'. *(PE)*

Members of the SRC are frequently engaged in decision-making, including ... conflict resolution, as part of a team comprising the [leadership] team, teachers and possibly parents too. (PA)

Students were seen to be mutually supporting and helping themselves in their learning, and honouring diversity. Principals gave the following examples:

Students learn about others in the class. ... They are supportive of their peers, they help each other academically and otherwise, and they value the voices and contributions of all. (PB)

In classrooms, students collaborate and negotiate in groups to plan and resolve problems related to their learning. ... They take increasing responsibility for their own actions and decisions while working as an entity. (PE)

In essence, schools appeared to equip students with 'lifeskills', that is, the mix of knowledge, processes, skills and attitudes that are considered necessary for people to function in their contemporary and changing life roles and situations, including 'social skills' (for living with and relating to other people) and 'citizenship skills' (for contributing to society). As some principals explained:

Students are taught the skills of assertiveness, and the importance of desirable qualities in life such as punctuality, self-confidence and responsibility. Teachers address these matters during moral and human values education periods, and in form meetings or at the morning assembly when speakers are invited. (PD)

There are so many student clubs and societies they get involved in, such as the 'UNESCO Club', 'Amnesty International', 'Environment Club' ... that give them ample opportunities to demonstrate their sense of responsibility, team spirit and leadership qualities and to pursue their personal and social development. (PB)

Principals' commentary therefore indicated that children might have multiple opportunities in the daily life of the school and classroom to make choices, engage in dialogue, solve problems, and take responsibility for their own learning and well-being with the guidance of adults. They could be taught explicitly how to take responsibility for themselves and others, to problem solve, and to use power and authority wisely. All these initiatives and practices in these high-performing schools are commendable because it is hoped that students will become adults who make contributions to their communities, who are active citizens, who engage in

democratic processes, and who show leadership skills. The paradox of the Mauritian educational context is that children are already segregated by virtue of their academic abilities into ‘star’ and ‘non-star’ schools within an examination-orientated education system that curtails these opportunities for a significant majority of children (see Chapter 1, section 1.3).

In line with the value of ‘excellence’ as far as academic performance is concerned, which seemed to underpin leadership practices, all principals interviewed simultaneously viewed the setting of high academic standards as of utmost importance. This objective was usually pursued through strong guidance and support to students. Students seemed to be motivated to put in the necessary effort so as to improve their performance continuously. These are evidenced in principals’ comments such as:

During form masters’ (*sic*) periods, students are constantly reminded to have goals and aspirations and to be prepared to work hard because the effort pays. (*PA*)

Student motivation is also brought about by the successes of predecessors: ‘success breeds success’. (*PE*)

Students are encouraged to believe that it is imperative ‘to do your job and to do it the best you can’. (*PA*)

Principals reported that, in classes, attention was generally paid to the learning styles and needs of individual students, special needs for learning support, and interests of students. The school climate appeared to be conducive to optimal performance, which was made possible by the allocation of adequate resources. For example:

We make provision in our educational programmes for the individual needs of students. ... We do make requests from the Ministry [of Education] for additional teachers to ensure an improved teacher-student ratio, enabling teachers to pay individual attention to students (*PE*).

In upper [grades], in particular, students receive additional lessons during recreation time and even after school hours to prepare them for the final HSC examination. ... Teachers are prepared to ‘walk the extra mile’ in supporting such needy students. (*PC*)

We have relatively small class groups, which enables the teachers to address the individual needs of the students better. ... Teachers use a range of ICT tools to support students’ learning. (*PF*)

However, this does not mean that specialised resources were used to pull students out of classes, but rather to provide support to strengthen the common ground of the school (the general education class), while building community, dealing proactively with behaviour challenges and teaching at multiple ability levels. As one principal pointed out:

Specialists, including social workers and special education teachers, work collaboratively with the general education classroom to meet the individual needs of students and help the teacher create a classroom that meet the needs of all students. (PD)

There was also some indication that the schools involved in this study were implementing self-assessment by students as part of their assessment policies. In some schools, students took a high degree of responsibility for managing and assessing their own learning. Such evidence was found in the following statements by principals:

The teacher serves as a facilitator to assist students with projects, which is the means by which students develop and demonstrate competency. Teachers help students to determine what competencies are needed, how they will be assessed, and how to work through and evaluate agreed-upon project components. (PD)

Teaching techniques for active learning provide an opportunity for students themselves to analyse, synthesise and evaluate information as part of the learning process. (PA)

The academic success of our school can be attributed to our excellent system of continuous assessment and ongoing control procedures, including self-assessment and examinations. (PD)

These responses by principals agree with the TQM tenet that schools should design instructional processes to ensure that student needs are interpreted in a holistic sense to include active learning skills such as knowledge, application of knowledge, problem-solving, learning skills, decision-making, interpersonal skills, character development, critical thinking skills, conflict resolution and citizenship (NIST, 2004, 2010). Principals' responses also appear to be aligned with the pursuit of the ideal of the International Commission on Education for the 21st century which calls for holistic education of children that promotes their mental, physical, intellectual and spiritual development (UNESCO, 1996).

This study therefore suggests that the participating Mauritian schools were committed to supporting both personal excellence and citizenship for all students in their 'star' schools. As much as students learning academic skills in school, they were expected to become fully developed and able to make contributions to their communities, to be active citizens, to engage in democratic processes, and to show leadership skills. This is a big calling but a critical one for the future of Mauritian students as well as for the Mauritian society. However, this is also the critical failing of providing opportunities for optimal personal excellence and participatory citizenship for all Mauritian children. It would be adding value to the education of students if they could witness and experience more democracy being modelled by adults in the school in decision-making between staff and the school leaders and engagement of parents and community members and, importantly, themselves, in having their say into the directions of the school. The dearth of truly distributive leadership actions and practices by the principals in this study could be a major stumbling block in modelling day-to-day democracy in action. Yet, empowering children to become citizens for and in a democracy is both a goal and a principle that should guide daily practice in classrooms and schools (Peterson & Hittie, 2003).

### **5.3.3 Parents**

It is important that a TQM organisation is seen as one that listens to and acts on the advice and expertise of 'front-line' staff as opposed to one which is formally organised and bureaucratised. In a TQM school, therefore, more emphasis is placed on people and values than on roles and rules. In particular, research evidence indicates that parents can make a significant contribution to their children's educational experience in numerous ways. As important stakeholders and partners in the education enterprise, parents can provide a home setting that promotes and reinforces what is taught at school. They can contribute knowledge and skills, enrich the instructional program, and provide additional resources. They can help children make their way through the school system and help the system be more responsive to all families. They can be involved in decision-making with school leaders in solving joint problems (Henderson & Berla, 1994). When families are involved, students hear common messages from home and school about the importance of attending school, staying in school, and working hard (Epstein, 2010a; Henderson & Mapp,

2002). Hence, parents and teachers share responsibility for the education and development of children. Collaborative activities of home and school help to promote student success, prevent problems, and solve those that arise.

Importantly, principals reported that their schools were meeting with and listening carefully to what parents had to tell them about their children, seeking to understand the child's strengths and needs, strategies that work, and interests of the child (Moore, 2000). Effective communication and consultation with parents were perceived by principals to help in further building a sense of collegiality and belonging to the school. Principals explained:

We try to build relationships with parents by involving them on parent committees, communicating with them on the phone, passing important information to them at parent meetings and by informing them via regular newsletters. Parents are also represented on the Board of Governors. (*PB*)

Parents generally have a positive attitude towards schools regulations and collaborate with the school's authorities. ... They are regularly kept informed of their children's progress through progress reports and they also ask us how best to support them in their studies at home (*PE*).

We welcome parents, especially members of the PTA, with open arms. ... [They] are very helpful and get quite involved in the organisation of certain events, especially our annual fancy-fair and prize-giving ceremonies. (*PC*)

Parents' meetings are important to us. We encourage and support the involvement of all parents in the learning of their children, get to know their concerns about their children's progress ... so we can act accordingly. (*PD*)

Principals' comments suggest that frequent and positive school-to-home communication through various communication modes helped parents feel more self-confident, more comfortable with the school, and more likely to become involved. This is supported by a wealth of literature indicating that parents are more likely to participate in schools if they receive information from teachers about classroom activities, the progress of their children, and how to work with their children at home (Epstein, 2010a, 2010b). However, in the present study, it has to be noted that all the above comments are pointing to the fact that parents were only permitted cursory participation in peripheral ways, and not through collaboration in the schools'

operations or involvement in decision-making. Parents were effectively marginalised from the school except where volunteers or supporters were needed.

For some principals, however, there was some uncertainty about the needs and expectation of parents, as major stakeholders, because they were actually not engaged very well. The attendance of parents' meetings was generally a cause of concern. As one principal exasperated:

Parents' attendance on 'open days' to discuss their wards' progress leaves room for improvement. ... Nowadays, parents are very busy people professionally; they don't have time to come to school. Anyway, you only get two types of parents: those whose kids do very well academically and who want you to tell them how wonderful their kids are, and those parents whose kids are a 'lost cause.' (*PE*)

The above cynical comment made by the principal could be indicative of school leaders' general mistrust in parents' capabilities as collaborators of teachers in improving various aspects of teaching and learning in the school, possibly leading to tension and poor relationships existing between parents and the school. Moreover, the comment says much about hierarchical, inequitable views within the principalship: that there is a hierarchy of students and parents. It may point to the prevailing view through the 'star-school system' that certain students are undesirable; that is, the lower achievers are given up as a "lost cause" (*PE*). Yet, the need for teachers and schools to make parents aware that they are valued and to acknowledge their time constraints and family obligations are key elements of a school climate that is conducive to family involvement (Epstein, 2010a).

Another principal involved in the study did offer a plausible explanation for the perceived lack of parental involvement:

Only a small percentage of parents are actively involved in assisting student learning at home. This could be an indication that parents are satisfied due to the effectiveness of the school. ... Having said that, I think that we are not doing enough to encourage parents to be involved in school activities, and we do not provide them enough information about how to support children in their learning at home. But this is understandable because it is difficult to trust those parents who are not so well educated, else they might instead be 'misguiding' their children. (*PF*)

This comment may also be pointing to the fact that parents and families were not involved too much, most probably because they did not feel that the school climate was one that made them feel welcome, respected, trusted and needed. Yet, there is much research evidence suggesting that when schools create a positive social and educational atmosphere by reaching out to families and putting in place structures for them to get involved, the result is effective home-school collaboration. For example, effective schools recognise the need to develop multiple strategies to reach out to parents, bringing them into the life of the school and the classroom in meaningful ways, listening to their input regarding their children, developing collaborative instructional and support strategies (Peterson & Hittie, 2003). Such partnerships connect families and schools to help children achieve desired school outcomes, including improvements in academic performance and school-related behavior (Cox, 2005; Epstein & Dauber, 1993; Henderson & Mapp, 2002).

A significant aspect seemed to be the ability of principals to empathise with the emotions of parents, often themselves former students, who have a long-standing connection with the school, thus reinforcing the tradition of the school and the sense that once starting at the school as a student one would remain part of the school for life (Nemec, 2006). One principal said:

Parents, who were here before as students, remain fervent supporters of their school and express strong views in relation to a wide range of issues concerning the day-to-day running of the school through ... to giving a helping hand in special events such as annual fancy-fairs and sports days. (PA)

While this may be indicative that bonds between families and schools were forged by finding ways to involve parents directly in particular special events of the schools, there was no evidence that their views were actually being taken into consideration in the ongoing work of the schools related to teaching and learning. In most schools involved in this study, parents' involvement remained limited to bake sales and other fund raising activities in fancy-fairs, attendance in PTA meetings, and organisation of sports days and price-giving ceremonies, let alone the number or percentage of parents who were really involved. Parental involvement was rather piecemeal. This finding of the Mauritian study is consistent with research showing that parents' awareness of what happens in schools and the reasons thereof, particularly in terms of pedagogy, is generally limited (Cavanagh & Romanoski, 2005).



Disconcertingly, some principals even openly expressed their inclination to exclude parents from decision-making and governance roles in the school, insinuating some doubtful motives for the latter's willingness to participate actively in school life. The following comments were made:

We believe that we have a better perspective than parents of what is necessary for the school and helpful for their children. So we can't allow parents to intrude too much in important decision-making in which they might not have the competence, anyway.  
(PC)

Some parents use their influence to control what goes on here when they volunteer, and what decisions are made in school committees. They just violate their boundaries. Do you think I can let this happen? (PF)

These comments clearly suggest some unprofessionalism and political incorrectness in the principalship. While some principals may give the impression of encouraging parental involvement, others prefer to remain in total control of making all decisions. They may be suspicious of parent motives for involvement but, given the incoherent statements made by different principals, it is more likely that they have difficulty sharing their decision-making power. To justify themselves, some principals arrogantly used an 'I know best' attitude instead of a 'we' notion supporting joint responsibility. In so doing, they were also showing a total lack of respect, openness, enthusiasm, and understanding toward parents as partners in their children's education. This is yet another stumbling block to a truly distributive leadership culture acclaimed by TQM theorists and other scholars in the educational literature. It is suggested that the promotion of participation of many different groups of parents and the provision of numerous forums in which parents are actively involved in decision-making, planning, assessment, and curriculum development, can prevent the formal school leader from becoming omnipotent (e.g. Epstein, 2010a; Henderson & Berla, 1994; Henderson & Mapp, 2002) and, more importantly, improve the educational experience and performance outcomes of students (Cox, 2005; Epstein & Dauber, 1993; Henderson & Mapp, 2002).

#### **5.3.4 Other educational institutions, businesses and the community**

As per TQM, the quest for quality in schools also entails developing long-term, cooperative working relationships with educational, community and business

partners based on commitment and loyalty, and with an emphasis on cooperation rather than competition (Deming, 1986, 2000; Oakland, 2003). On the one hand, partnerships are needed in effective schools that link with community resources and, on the other hand, local communities are strengthened by using the resources and learning activities of the school. Such partnerships can improve school programs and school climate, increase principals' leadership skills, and help teachers with their work (Peterson & Hittie, 2003). However, the main reason to create partnerships is to help all children to succeed in school and, more importantly, in life (Epstein, 2010a, 2010b). In TQM parlance, this is about achieving quality by meeting and exceeding both internal and external stakeholders' needs and expectations of education (Mukhopadhyay, 2005; Parasuraman, Zeithaml & Berry, 1985; Weller & McElwee, 1997).

When asked about the kinds of partnerships or links they had established with other schools, some representative comments made were:

We do make investments in promoting the school in primary schools. After all, they are our feeder schools. *(PC)*

Teachers teaching in lower forms have requested, in a not too distant past, to make site visits to primary schools and to shadow primary school teachers. ... We try to ensure a smooth transition of students from the primary to the secondary level. *(PB)*

Principals also reported that some universities often provided feedback on the achievements of alumni as part of their own networking and marketing strategies. By so doing, these universities were reaffirming their own needs and expectations for high quality student inputs from secondary schools. One principal stated:

We frequently obtain feedback from universities telling us about our past students who have graduated and how well they have been doing. ... Universities do not want us to forget them. This is part of their marketing strategies so that we keep sending them potential students. *(PA)*

It seems that principals' perceptions of 'partnerships' between educational institutions was limited to securing or reinforcing their loyalty as 'feeder' schools, to ensure or enhance enrolments, and to promote custom, and therefore cannot be called partnerships per se. There was no evidence that schools were developing opportunities and fostering continuing interactions with other partners in the

education enterprise with the aim of enhancing learning and their ability to deliver their services, satisfy students and stakeholders. Yet, the TQM paradigm suggests that schools should truly seek to build such networks in order to develop and improve their capacity to engage with the increasingly complex and demanding educational agenda in society (Bonstingl, 2001; Mukhopadhyay, 2005; NIST, 2004, 2010; Sallis, 2002).

However, some principals believed, albeit with reservation, that it could be worth sharing successful strategies across the educational system. As one principal explained:

Of course, we could have reached out to low performing schools to assist them in terms of teaching methods, learning resources and management practice. ... As a 'leading' school, we could have set the example, but there is also the problem of other schools not wanting to be shown how to do things. They would surely be saying say: "But who are you?" or "Do you think you are that perfect?" (PA)

Note that the use of the words 'could have' by principal PA twice in his/her above quote indicates that reaching out to and caring for other schools within the system is simply his/her vision which remains far-fetched for the time being. There is also the suggestion that there are problems with the teachers, students and their parents in lower achieving schools, which are condemned and marginalised. The reservation set by the principal is an indication that some schools perceived themselves as 'quality' schools, but did not see themselves having a role to produce a 'quality' education system at the national level. Indeed, not a single principal interviewed seemed to be concerned with treating leadership in terms of a systemic responsibility. Principals were rather focused on what was happening in their own schools only as stand-alone sites. This is a significant finding in the sense that it is a major deviation from TQM.

Benchmarking, as a strategy to compare and identify the very best programmes and services that were delivered by other high-performing schools was used to a limited extent. Examples of such instances given by principals were:

We draw comparisons between our school's performance and that of other similar schools within the congregation of Catholic Schools. There is nothing wrong in copying what others are doing better than you. (PA)

Our [leadership] team undertook a study tour to high profile schools to learn from them in an effort to study and compare instructional systems that they are utilising and to improve ourselves ... [and] to familiarise ourselves with other management practices. *(PB)*

Nevertheless, school leaders who were not already making use of benchmarking were very positive about its potential application. Another principal said:

In a sense, schools are not operating in isolation ... We could certainly learn many lessons from other schools in terms of best practices and novel approaches in education, and also from other organisations about techniques of business management which can be adapted to suit our purposes. *(PE)*

The general impression given by principals' comments is that partnership and benchmarking are one-way processes of learning and 'copying' proven strategies and techniques from other schools and adapting them to suit their own purposes and interests. There was no indication of any reciprocity or mutuality in the sense of also being willing to help other schools to improve. This reinforces the finding made earlier that principals did not perceive their leadership responsibility as being a systemic issue, otherwise more could happen to help other 'non-star' or sub-optimised schools in the system.

When pressed about the ways in which their schools were developing working partnerships with businesses and the community and the reasons thereof, here are what responding principals had to say:

Facilities are made available to the community, which include sports grounds, the gymnasium and school's main hall for conferences and celebrating social events. Such practices can only have a positive impact on the community to which we belong. ... It shows our sensitivity towards the goodwill of society. ... In return, donations and sponsorships to the school illustrate the goodwill of the business sector and the community. *(PC)*

We perceive our influence on society as substantial in terms of preparing our students for university studies and professional careers. *(PD)*

We depend on the business community for financial donations to improve our school infrastructure and sponsorships for sport events. *(PB)*

It appears that principals' idea of developing partnerships with businesses and the community was mainly to make schools' infrastructure and facilities available to them on a sporadic basis or as one-off events in exchange for "financial donations" (PB) and other material gains. But these are again not 'partnerships' in the sense in which they are currently being discussed in the educational literature. Partnerships with stakeholders inside and outside the school should instead lead to their active participation and decisions regarding improvements in the design and delivery of educational programmes and services.

Nevertheless, it was reported that schools were anticipating matters of public concern to some extent and involved in citizenship practices to address such issues. For instance, principals said:

Public responsibility at [School B] comprises a 'support system' to supply food parcels to needy and old aged people in the community. (PB)

We set the climate for community involvement and teachers lead a particular [grade] group in a certain direction, for example, they visited a home, planned a picnic together with senior citizens and prepared lunch for them. (PE)

One of our students initiated an awareness campaign against cancer, which developed into a youth organisation. (PC)

There are many student societies run autonomously by the students. One of them is the SOS [School A] which aims to help the homeless and other people in need in an effort to address social problems in the community. ... Student leaders of the school's Amnesty International Club have had talks with their peers to raise awareness on poverty and the protection of human rights, demonstrating their dedication, sense of responsibility, team spirit and leadership qualities. (PA)

The principals' comments above suggest a 'social justice' flavour to their interpretation of citizenship practices with students appearing to take a greater role than the school itself. This bears resonance with the perspective of Senge *et al.* (2000) that the school, as an organisation, could be more human as it centres on human communities and have increased opportunity for contributing to society. There is also research evidence suggesting that when teachers and the school as a whole develop working partnerships with businesses, individuals and organisations, the children's learning for personal excellence and citizenship is strengthened

(Dunst, Trivette & Deal, 1999). Yet, in this Mauritian study, relationships with external stakeholders seemed to be mostly superficial and cooperation unproductive.

#### **5.4 Commitment to change and continuous improvement**

TQM is a commitment to continual improvement as one of the pillars of quality. Achieving quality is a never-ending journey of self-improvement, the improvement of other people and processes (Bonstingl, 2001; Sallis, 2002; Mukhopadhyay, 2005). This is realised through methods and tools such as multi-functional teams, stakeholder feedback, staff empowerment, and data collection methods and measurement to build quality into the system and processes, and not by inspection of the end product or service (Dalu & Deshmukh, 2002; Table 2.2, Deming's Points 3 and 5). Ultimately, the focus of continuous quality improvement is on the optimisation of individual potential within an organisation. Hence, leading and managing school change and improvement are some of the major challenges of school leadership (Fullan, 2007; Hargreaves, 2005; Hargreaves & Fink, 2003; Starr, in press (b)). School leaders are faced with the daunting task of anticipating the future, making discernible adaptations to their practices and taking charge of change so as to be responsive to a rapidly changing and increasingly complex society (Earl & Fullan, 2003).

In the present study, the principals interviewed showed understanding of the fact that processes have to be changed continuously to ensure improvement and progress. The following comments were made in this respect:

We conduct strategic management meetings every second year to revisit the previous planning and the whole planning of the school moves from there. The results of the planning are captured and serve as a working document to ensure that all matters are being addressed. *(PE)*

The school management team functions as a quality assurance team with the aim to review the 'previous answers' continuously, to identify weaknesses and to decide where to improve. This review is taken further when the [principal] meets the staff weekly to consult, plan and test ideas during group discussions. *(PB)*

Principals reported that schools were led so that innovation became part of the culture and integrated into daily routine work. The principals interviewed seemed to

“romanticize the concept of ‘learning from failure’” (Mukhopadhyay’s, 2005, p. 154), which is in line with TQM, as propounded by Deming and other quality experts. Some comments made along these lines were:

Here, we allow teachers to try novel approaches to teaching and also in other areas such as sports. ... There is no risk for failure. Success and failure have one thing in common: both means you are trying ... to improve. (PA)

I always tell my staff and students alike: “Only those who dare to fail greatly can ever achieve greatly.” (PC)

However, it has to be noted that if students fail the examinations, then they fail to continue with schooling in Mauritius. Hence, some more slippages in the principals’ arguments are detected in the above comments.

The importance of leadership succession and sustainability were again emphasised by one principal in the context of ensuring the continuous improvement of school processes. S/he said:

There should also be continuity of decisions and processes between incoming and outgoing headteachers to ensure ongoing improvement. (PF)

Principals in this study were asked what they value as important for school improvement efforts to be successful, and how the principal’s role should change so as to lead and manage change. As expected, communication seemed to be of fundamental importance in the process in principals’ responses. Principals said:

School improvement must include strong leadership including well-refined, communication skills. A school leader must be aware of what is going on within their school and facilitate the rate at which change progresses. (PE)

I think for change to be successful people have to understand why the change is happening. There also has to be an understanding of the change process and this has to be communicated to staff. (PB)

It has to be noted that principal PE’s comment is yet again indicative of a traditional and conservative view of leadership where the formal leader is confounded as the ‘Master of Ceremonies’ who control events and activities, or as a ‘barometer’ of what needs to happen and when.

School leaders further indicated that they have to demonstrate their involvement in establishing quality management through their communication with staff, making themselves accessible, listening to staff, and providing assistance and support to staff in overcoming resistance to change. For example:

I have to gauge the teachers' emotional response to events, changes and expectations. ... I make it a must to counsel staff, directly or indirectly, about aspects of their professional life ... and unexpected problems as a result of change and innovation. (PB)

When an innovation is implemented and things do not go according to plan, and these things do happen, there needs to be an understanding that this is to be expected and that the innovation is not doomed. Perseverance is what is needed so that we can move forward. ... Some people will need support while others will need to have their confidence boosted or to be convinced again, still others will have to be pressurised to stay on board. (PE)

It is comforting to know that principals were aware that even successful schools experience unanticipated, negative consequences of change initiatives as they try to put them into practice (Evans, 2001; Starr, in press (b)), which Fullan (2001) calls 'implementation dips.' Fullan (2001) suggests that school leaders who understand and acknowledge the implementation dip know that people can experience two types of troubles when the dip is hit: the social-psychological fear of change, and the lack of technical know-how or expertise to make the change work. According to the responding principals, a school leader who is sensitive to implementation dips will do things that are more likely to get the school going and be better able to see the change through to completion. This could be a manifestation, at least theoretically, of their urgent sense of moral purpose.

Still, the comment made above that some staff "will have to be pressurised to stay on board" (PE) is a tone of voice indicative of Mauritian school leaders' bent towards more directive approaches to leadership, which is an apparent contradiction to the wisdom of the TQM literature as to the universal appropriateness of shared leadership in schools. The message here could be that, while accepting the philosophy of shared leadership, a change program well on its way cannot be hijacked by an insignificant few die-hards for the status quo for personal interests or otherwise, when it has been collectively agreed to be in the best interest of the



majority, especially students. As Bezzina, Burford and Duignan (2007, p. 25) say, “[l]eaders need to be comfortable with the fact that while the overall approach to leadership ought to be collaborative, not every decision need to be so.” Someone still has to be the ‘boss’ who maintains ultimate authority and make the tough decisions for the good of the organisation (Starr, in press (a)).

The principals interviewed believed that successful school improvement requires establishing a clear educational vision and a shared institutional mission. They made the following commentary:

I think that bringing about any kind of school improvement takes time, and [principals] must work to ensure that they are conveying their vision in a clear fashion. The school leader’s role is one of a mentor, who leads and guides a staff towards improvement. *(PB)*

There is a very important thing a school leader must do to work towards true school improvement. It is to create a shared vision where staff take ownership of change initiatives. I call this ‘commitment’ versus ‘compliance.’ *(PD)*

Collaboration and teamwork were perceived by the responding principals as key elements in seeing change efforts through to fruition. These were made clear in the following statements:

I believe that for school improvement efforts to be successful, [principals] must work in collaboration with staff by building valuable relationships. School initiatives are successful when teachers feel that they are a part of the decision-making process, and are going to actively be able to take responsibility and be a part of the change. *(PE)*

A school leader should be able to inspire others to take the leadership role. ... School leaders cannot be solely responsible for the change process so the more that staff lead the better for all involved. *(PD)*

I believe for successful school improvement it is essential to have a well developed plan that has been created by a team (head of years, administrative teams, members of the school management team and teachers). When a staff is intrinsically motivated to act there is a snowball effect and a culture of collaboration is created. *(PA)*

This study therefore demonstrates that principals’ belief in helping teachers and other stakeholders build effective teams by developing new organisational structures and creating a shared vision that focuses on front-line workers taking ownership of the

change initiative. Such informed leadership is critical to the success of schools since a “school is a supremely human enterprise” (Redding, 2006, p. 12) and it is human nature to resist change if the people who have to execute the change and bear its consequences are not involved in its design (Evans, 2001; Hargreaves, 2005).

It is essential that leaders of school improvement link to others in the school and connect the school’s goals to the broader and deeper mission of providing high-quality learning for all students. Some principals indicated that innovation was important for providing new and ever-improving value to students and for continually improving educational processes. For example, one principal said:

Above everything else, the principal must be the instructional leader, and lead improvements in student learning all the time. *(PC)*

Of course, these high-performing schools were also setting measures to control, review and evaluate academic progress on a continuous basis. Such formative assessment were perceived by principals as providing information which enabled informed decision to be made regarding improvements in teaching and learning. Some representative comments made were:

Students’ performances are reviewed continuously throughout the year. These reviews comprise an analysis of the results and individual interviews with students and also parents, where necessary. ... Teachers can then take necessary remedial actions and adjustments to their lessons in order to improve the performance of students. *(PA)*

Students are continuously evaluated by means of class discussions, regular tests and project work. ... [These] allow teachers to know what to improve in their teaching methods, techniques and approaches. *(PF)*

Continual assessment comprised regular control of students’ homework, regular tests and examinations which are aimed to prepare the students absolutely for examinations. ... They enable informed decisions to be made on areas for improvement. *(PC)*

It appears increasingly that the focus of principals may be on their school reputation via student attainment on tests and examinations. This simply contradicts their comments mentioned earlier about educating the whole child and catering for their multiple intelligences.

Some school leaders in this study were also considering equity issues when developing and implementing change initiatives. For example, one principal said:

The openness towards new ideas, like the introduction of Creole as a medium of instruction, opens the way for continual improvement. ... This will not necessarily suit all students but it will definitely improve access to higher-order learning tasks for slow and less able learners. (*PD*)

Some principals talked about the externally imposed changes by central educational authorities, making the change process difficult to manoeuvre. These insights were gained from the following comments:

Any school improvement plan should include goals that are aligned with the ministry's initiatives. We don't have much choice, do we? ... Also, parents, students and other stakeholders have conflicting interests and demands, and we have to try to please everybody. (*PD*)

Every five years or so, a new government is elected, bringing a new educational reform which contradicts and substitutes an earlier reform by the old regime. A new government [thinks it] has to be seen to be doing things differently ... but they don't even consult us. Here we go, abiding by orders from above and starting all over again. ... The situation is really chaotic. (*PF*)

The paradox in the comment by principal *PF* relating to his/her complaint made about not being consulted by central education authorities regarding policy decisions is that the same goes for teachers with principals as for principals with the government.

Moreover, principals were concerned that they had to manage resistance to change programs by teachers, although it appears that they were more tolerant of resistance by teachers to externally imposed change than to school-based change initiatives for improvement. One indicative comment was:

The introduction of this [national assessment] at Form 3 level is unfair for students. These children and their parents now have to undergo another high stakes examination after having overcome the unbearable stress of the CPE exams. ... I'm afraid that teachers might just be teaching to the test to show desirable or expected results. What about the real learning, but have these teachers got any other choice? (*PB*)

The comment indicates that the government's emphases are on more accountability through tests and pressure on teachers and schools to achieve better scores, high standards through centralisation and standardisation of curriculum and instruction, while teachers focus on rigorous instruction through focused teaching to the tests. However, the justification by principals of such tendency to teach to the test is also suggestive of their sense of having no agency, which is not 'leadership' as they describe it themselves. They may be putting overemphasis on achieving high test scores in a limited number of subjects as the single criterion for judging the success of students, teachers and schools. Thus, they may be hampering children's creativity and unrecognising talents that are truly needed in the global economy.

At the same time, other principals welcomed the burden of having to lead and manage change as a challenge, viewing it as part of their job. One principal said:

School improvement is such an exciting part of being a school leader. Part of the excitement stems from the fact that we do not know what's the next government's change agenda. ... Imposed changes in policy which will have to be reconciled with our own goals and values. ... Life may not be the party that we had hoped for, but we might as well dance while we are here. (PA)

Worldwide, there are growing concerns and expectations that governments hold school leaders accountable for leading and managing significant change for school improvement (Starr, in press (a), (b); Thomson, 2008). This study shows that the Mauritian case is no different. In the context of ongoing educational restructuring and reform in Mauritius, these mandated, externally imposed and often competing reforms make change efforts at the individual school level both complex and messy (Blase, 2005), yet school leaders have no options but to comply. They also need to understand the change process in order to lead and manage change and improvement efforts effectively, and they must learn to overcome barriers and cope with the chaos that naturally exists during the complex process of change (Fullan, 2007; Starr, in press (b)).

## **5.5 Decision-making based on data**

In the TQM philosophy, the emphasis is on decision-making based on data (Deming, 1986, 2000). TQM aims at continuous quality improvement and needs to base its

development strategy on baseline information. Therefore data and information are necessary foundations for decision-making for continuous quality improvement. Proactive and responsive (as opposed to reactive) decision-making based on facts provides the basic foundation for TQM, requiring a different orientation – a shift from emotional to rational, evidence-based decision-making and policy-making (Mukhopadhyay, 2005). Importantly, it is also necessary to develop a ‘data culture’ in the school which facilitates participative decision-making, for it provides transparency in leadership, is fact-based and hence more scientific (Deming, 1986, 2000). The collection and analysis of data to identify and obtain feedback on the needs, expectations and satisfaction of stakeholders over time are, in fact, at the heart of TQM. Obtaining feedback and acting upon it is what differentiates TQM from every other leadership and management theory (NIST, 2004, 2010; Sallis, 2002; Bonstingl, 2001).

In this study, the principals in the participating schools declared that they were employing a variety of data collection methods, including informal discussions and interviews, with students and parents to determine their concerns and to ascertain their needs and expectations. For example:

I meet informally with members of the SRC (School Representative Council) to listen to them and to find out what their needs are. *(PC)*

Dean of studies, the assistant rector (principal) and myself have personal talks with students and also conduct informal interviews occasionally with students to determine their aspirations and how the school could address them. *(PA)*

The views of parents are obtained through informal interviews either on the phone or in person to consult role players on particular issues. *(PE)*

In the context of gathering data, most school principals openly expressed their adherence to an open-door policy which resulted in an atmosphere in which teachers, students and parents felt free to communicate with people in formal leadership positions, although sometimes they contradicted themselves by stating that formal arrangements had to be made before meetings with them were possible due to their heavy work schedules. Many such instances were expressed by the interviewees:

We have an open-door policy ... Staff and students regularly come to me to say things which are not working and we then find out how to solve these problems collectively. (PE)

Parents can come and visit us whenever they feel like it and ... discuss what they are unhappy about the school. ... It's not necessary to make formal appointments. ... Teachers and myself, we are open to discussion and students can come to us, formally or informally ... to share their concerns. (PA)

Parents can come to school at any time and request to talk to me about their concerns but I prefer that they make prior arrangements with me. They are happy about such arrangements. (PB)

I follow an open-door policy towards students, staff members and parents but, for practical reasons, it's important to make appointments. (PD)

The most common formal methods of data collection in the sampled schools were through meetings of the school leadership team, staff, departmental and parent meetings. The leadership team and staff also held meetings and planning sessions amongst themselves and with parents, where school improvement issues were discussed. Indicative comments included the following:

Planning sessions involving all (teaching) staff are held annually to review the school's overall performance, identify weaknesses and then look forward to improving on past performance. As a result, corrective actions are taken to ensure future improvement. (PD)

Staff meetings are held regularly where we compile lists of aspects that can still be improved, discuss matters, seek solutions for problems and give ideas. (PC)

However, it may be argued that these data collection exercises were not systematic, and therefore do not contribute, in terms of TQM, to a 'data culture' which facilitates participative and rational decision-making.

It was also reported that data were gathered from students during meetings of grade groups through the use of suggestion boxes at some schools but there was minimal evidence on the use of formal questionnaires to gather data systematically for decision-making purposes. One principal explained:

We make use of suggestion boxes ... No, it is not customary for us to use questionnaire surveys or other statistical methods to collect data formally. (PD)

This comment is clearly indicating that decisions in School *D* were not evidence-based.

However, as some principals themselves confirmed, the measures schools took in gaining feedback from stakeholders still appeared to have shortcomings. For example, a disturbing finding was the selective way in which one particular principal dealt with data gathering. S/he stated:

Sometimes, my approach is to obtain the views of certain role players only [so as] to prevent unfair requests and too many conflicting demands. (*PC*)

At another school, student journalists of the school's newspaper were not allowed to conduct interviews with their peers or to make use of questionnaires to obtain their opinions. The principal went as far as to say:

Surveys are not being conducted because the students will make a joke of it. ... They know well that we cannot satisfy all of their personal expectations and deal with all of their complaints because there are other more important 'educational' issues to be attended to. (*PD*)

Principals seem to be suggesting that surveys could only provide 'bad news', and hence their reluctance to use them formally. From a TQM perspective, surveys and meetings could also provide 'good news,' as indications of the extent to which school processes are working satisfactorily, although the emphasis should be to 'improve constantly and forever the system of production and service' (Table 2.2, Deming's Point 5), hence 'problems' or 'bad news' provide guiding information for improvement.

These comments and the ones earlier about 'open doors' to hear complaints suggest that principals were not creating or maintaining 'open' school cultures. Implicitly, but misleadingly, principal *PC* is saying that students needs and expectations are not important 'educational' matters, and so the degree of care in this school for the well-being of students has to be questioned. This disconcerting situation could be ascribed to a substantive amount of intolerance and bias exercised by the principal and by the lack of a participatory culture within the school, which reflects the principal's autocratic style of leadership. It could be linked to the critical stance of the literature when it comes to the use of statistical techniques in schools. It is suggested that

statistical techniques in schools may be inappropriate or culturally removed from the accepted intuitive and professional judgement of teachers (Berry, 1997). It is also suggested that statistical techniques in schools should be used sparingly, in a focused way and with the intention that they enable understanding and facilitate the systematic examination of the consequences of change (Murgatroyd, 1993) or as constructive pointers as to what needs to improve internally. In the strict TQM scenario, measurement should therefore serve the task of quality improvement.

Some principals interviewed generally spoke of the difficulty in using quality tools and techniques to collect data formally, referring to time constraints and their inadequate knowledge of statistics and skills in analysing data. They expressed their concerns as follows:

I think there is nothing wrong with using questionnaire surveys and other formal means to gather information about people's needs or complaints. The problem is that it takes time and we have no time for that. ... We are also not trained to collect data systematically, let alone to analyse them statistically. (PE)

My staff will have to be trained to construct questionnaires to collect data and they will need to have some knowledge of statistics to be able to analyse the information. ... But not everyone is statistically minded and I guess that it will be hard for all people to think in statistical terms. The [other] problem is that it will take so much time to carry out systematic data collection. (PC)

The responding principals are assuming that data has to be statistical/quantitative, but they don't have to be; qualitative data provides commentary, ideas and explanations. Principals' comments are in accordance with research findings that there is simply not enough time for principals and teachers to sort through heaps of data collected by external agencies about their schools (Schildkamp & Kuiper, 2010; Shen & Cooley, 2008), or are unprepared for data analysis so as not to add extra constraints to their already demanding professional life. Moreover, there is an implicit avowal by the principals interviewed that their staff and themselves were not competent in processing data and turning them into meaningful information in the first place, and they therefore seemed to lack the confidence to analyse and use data for decision-making purposes.



Some principals, however, were receptive to the importance of data for improvement. Although the participating schools in this study did not use formal questionnaire surveys to gather data, their principals clearly thought that these could be useful in determining and anticipating the changing needs and expectations of future students. The following quotations capture principals' beliefs:

Information from surveys could be used to anticipate the future needs of students. Factors that would have to be taken into account are the changing requirements of graduates in the workplace or other education institutions, changing local, national and global requirements, and education alternatives for prospective students. *(PB)*

It would be a great idea to use questionnaires or other data collection methods to find out the key factors that affect [students'] needs and expectations in order to support the school's longer term planning and curriculum development. *(PC)*

It can be deduced that successful Mauritian principals were using a host of informal data collection methods, including listening strategies, to ascertain stakeholders' needs and expectations, but the use of formal questionnaire surveys or other quality tools and techniques was not a common practice. They took into account information regarding student needs not only from the students directly, but also from parents, employers and other education organisations, although these were not on a regular or systematic basis. Principals' contradictory positioning of data was evident.

Nevertheless, some principals thought that rational decision-making based on data collected in a systematic fashion would be the right approach when a particular process would have to be studied or for once-in-a-lifetime decision, but not decisions related to quality requiring frequent or periodic decisions, as the following comment reveals:

The chances are that systematic data collection using statistical techniques will work if we are carrying out a particular feasibility study, for example, if there is need for a second school canteen, construction of a new library, etc. It is not sensible or practical in terms of time and energy to use them always and for every decision to be taken. *(PE)*

Contrary to expectations, the comment made seems to be suggesting that data are appropriate for non-academic purposes at the school level rather than for improving teaching and learning at the classroom level. However, this finding of the Mauritian

study has parallels with other research conclusions. For example, Shen and Cooley (2008) found that besides rarely using data for decision-making due to their heavy workload and the lack of confidence in handling data, whenever principals make use of data, it is generally for marketing and promotional purposes to enhance enrolments and attract greater funding. Similarly, Schildkamp and Kuiper (2010) conclude that school leaders mainly use data for making school policy development decisions, and that it is teachers who are more disposed to using data for making instructional decisions. As Shen and Cooley (2008, p. 322) conclude, “[i]t is a serious issue to just focus on data ‘of’ learning to the extent of neglecting data ‘for’ learning.” One of the challenges of schools in Mauritius, as suggested by the TQM paradigm, would therefore be to strive towards a more evidenced-informed position by examining the use of data and how understandings of the leadership-learning links they foster might be deepened.

Furthermore, in the present study, collaborative decision-making was perceived by the principals as being important in the process in enhancing the meaningfulness of the data. Some indicative comments were:

I think people would be more willing to use [quality] tools to collect data when a particular process is to be studied and when they are in a group empowered to make a decision ... based on the subsequent analysis of the data. *(PB)*

Having multiple members of staff involved in analysing data collected by statistical methods and putting small teams, instead of individuals, responsible for making decisions will help to increase transparency in the decision-making process and give more meaning to the data in a more meaningful context. *(PC)*

Here again, principals’ comments reveal their conviction that data in their original form have no meaning on their own (Earl & Fullan, 2003), but that they become valuable when they are shared, debated and applied in a social context (Brown & Duguid, 2000). Yet the study reveals this may only occur in actual fact for those with formal leadership titles.

Ideally, transforming data and information into knowledge is a human process that involves taking on a ‘social life’, requiring “the collective capacity of teachers and leaders in schools to examine data, make critical sense of [them], develop action plans based on the data, take action and monitor progress along the way” (Earl &

Fullan, 2003, p. 392). A key task of the school leader is to create and sustain an ethos for all stakeholders in the school and the community to have the knowledge they need in the quest for continual quality improvement. Moreover, there are research studies specific to educational data use (e.g. Huffman & Kalnin, 2003; Lachat & Smith, 2005; Vanhoof *et al.*, 2011) suggesting that support initiatives that offer participants opportunities for discussion and to exchange experiences both inside and outside their schools are indeed desirable. The key point is that it is the discussions on the use of data and the associated socialising process, rather than the data themselves, that can guide meaningful strategies for action to improve teaching and learning (Zupanc, Urank & Bren, 2009).

Importantly, some principals in the present study were adamant that staff members' professional intuition, anecdotes and experience could not be ignored. Their beliefs are reflected in the following comments:

Surveys could be conducted using questionnaires to gather data. ... Even if we were to use questionnaires to determine students' and parents' views, I would still have to rely on 'hear-say' to understand how people see things, feel and think. (PA)

Teachers here are always talking about their best practices and exemplary methods they have used that have made a difference. They can always learn from each other based on their professional intuition and experience. (PF)

Hence, in common with the TQM tenet of 'decision-making based on data,' leadership practices amongst some interviewees were based on hard evidence but, as a deviation from the very same TQM tenet, such practices were simultaneously being informed by a qualitative view based on professional discourses, intuition, judgement, perceptions and lived experiences of educators that were perceived to enable informed decisions to be made. This is a noteworthy finding because it is suggesting how TQM needs to be nuanced so as to be relevant to schools. 'People' are the 'product', and so the 'qualitative' evidence is equally important. After all, education is a moral enterprise (Duignan, 2005, 2007; Fullan, 2003; Sergiovanni, 2006), and so there is an ethical imperative to know what people think, experience and perceive, not just how they perform. This is essential in the quest for quality education, in deciding what is significant, right and worthwhile. While data may provide a sound foundation that influences effective decision-making in the process

of continuous improvement, they are not the transformative process itself, and should not be considered the soul and heart of the process (Bonstingl, 2001). In summary, as Knapp *et al.* (2006) claim, data should ‘inform’ rather than ‘drive’ quality decisions. As it stands, data is aspirational, not actual.

## **5.6 Professional learning**

If there is one principle of TQM in which schools should excel, it is to provide all staff members a sound programme of education and self-improvement (Table 2.2, Deming’s Points 6 & 13; Steyn, 1996). The school should be a learning organisation at all levels – student, teacher, and leader (Gandolfi, 2006; Senge *et al.*, 2000). Effective professional learning brings attitudinal and behavioural changes that are important for improving people’s abilities to perform effectively and efficiently, and serves as a catalyst for lasting changes in practice (Borko, 2004; Desimone *et al.*, 2002). It focuses on deep learning and practices that improve both teacher efficacy and student outcomes (Fullan, 2003). In accord with Deming’s (1986, 2000) philosophy, such on-the-job education should be anchored in fostering teamwork and cooperation. It should be supported by activities that are collaborative in nature and embedded in practice in useful and coherent ways so that teachers can learn from each other and develop progressively higher levels of expertise (Desimone *et al.*, 2002; Knapp, 2003; Wayman, Jimerson & Cho, 2011; Yates, 2007).

In this study, principals reported that they were providing opportunities for professional learning of staff members in the responding schools. According to them, such professional learning activities were occasionally being undertaken in their schools in the form of whole school staff development programs or in-services for head of departments and head of years, conducted by themselves. One principal explained:

Staff development is ... effected via staff meetings and general workshops. ... From time to time, we organise whole-staff sessions and in-service sessions for heads of department and heads of section when either myself or my assistant would take the lead to address issues as wide-ranging as classroom management, discipline, assessment, teaching of mixed-ability classes. (PD)

While these professional development programs could be seen as structures whose alleged purpose was to equip staff for the rigours of teaching, they had the quintessence of large-scale, formal, lecture-type sessions run by a formal leadership figure who was perceived as being an ‘expert’ or more knowledgeable than other staff members in the subject under consideration. While such sessions may not necessarily be poor vehicles for learning and while they may be an appropriate starting point, they are seldom, if ever, sufficient (Guskey & Yoon, 2009). What is more important is what happens within and after the sessions in relation to teaching and learning. However, in the present study, their real function rather seemed to be ad hoc orientation sessions to disseminate information and school protocols, policies and procedures, and, at times, for the few chosen by the principal.

Teachers in the participating schools were said to receive support through in-service departmental workshops supervised by heads of department for the continuous upgrading of teachers’ knowledge and skills. These were perceived by principals as instrumental in enabling teachers to maintain high academic standards. Principals reported that:

Teachers also receive guidance in their subjects from the heads of department who provide guidelines of exactly what is expected of teachers. ... Each department conducts its own training sessions formally, at least once every school term. *(PA)*

Training is continuously being provided to teachers in the form of departmental workshops, conducted by heads of department, particularly to prepare them for the teaching of new syllabuses set by the external examination bodies. *(PD)*

Teachers are supported through staff development programs, for example, how to use ICT to complement their teaching, how to teach mixed ability classes. This is done in formal departmental workshops, under the supervision of the head of department. *(PC)*

It seems that, in the schools involved in this study, school leaders’ structured in-services for head of departments and other middle managers, who in turn provided in-service sessions for teachers on matters relating to teaching and learning. Thus, teachers are ‘done to’ and not instrumental in decision-making about what they need to learn by formal leaders who appear to indicate that they are the ones who know best. Furthermore, such in-service sessions in schools were bounded by traditional

departments and subject disciplines and endorsed extreme specialisation, which is contrary to Deming's notion of building quality by promoting a systemic approach. Deming (1986, 2000) suggests the need to break down barriers between departments (Table 2.2, Deming's Point 9) and to favour cooperative ways of working so that a 'learning and leading at all levels' approach is pervasive. In a school context, this means that, for example, professional learning should be designed so that the curriculum could be taught in multi-disciplinary ways and teachers' learning occurs in collaborative, self-determining, non-hierarchical ways.

Nevertheless, in this study, while the principals interviewed seemed to place great value on ongoing teacher professional development, they themselves expressed concerns about the lack of staff involvement in the design of their learning programs, including needs identification, and the lack of collaborative approaches to professional learning. It's perhaps because in every other way staff members are 'taught' to follow and be dependent, and not to take initiative. When asked about the adequacy of their professional learning programs in their schools and how these could be improved, here are some comments made by principals:

Some teachers still feel that these departmental training and subject support are inadequate or below standard due to the absence of individualised professional plans ... [and] more collaboration among all department members. For example, a new graduate might have learned a novel approach to teaching a particular topic at university and all would benefit from exposure to it and debating about its applicability in the real world. It's not just young teachers joining the profession learning from more experienced teachers. It's a two-way traffic. (PF)

To develop individual plans, it might be necessary to assess staff members and to make use of staff self-assessment. Sure, this is important but this is an area we need to improve on. (PD)

What we probably need more are staff and skills development programs that are jointly developed (by heads of department and their staff). This would involve job analysis to understand the types and levels of skills required and the timeliness of training. (PE)

The responding principals were only acknowledging *in theory* an overwhelming corpus of research which shows that professional development programs have more significant impact on student learning when staff participate collaboratively, are

actively engaged, and are able to link new learning to practice in ways that enable them to immediately experiment new skills or knowledge *in situ*, as a matter of usual practice (Borko, 2004; Desimone *et al.*, 2002; Ingvarson, Meiers & Beavis, 2005; Knapp, 2003; Yates, 2007). Many comments made earlier by these very same principals indicate that the reality in schools might be quite different to what they assert they actually do or believe in.

Much research also suggests that the aim of professional learning is to provide structured supports that encourage positive collaboration and facilitate multiple ways to pool and share expertise throughout the school, to facilitate long-term changes in practice that are likely to improve student outcomes (Borko, 2004; Desimone *et al.*, 2002; Guskey & Yoon, 2009; Knapp, 2003; Yates, 2007). Such practices were found to be desperately missing in the participating schools.

In this study, schools were also making use of the services of external experts to conduct professional development sessions on their own premises or sending teachers to attend enrichment courses and seminars on what was perceived by principals as relevant educational matters. For example:

In the past, newly recruited teachers followed a two-year part-time course on ‘Basic Pedagogy’, run by the BEC (Bureau de l’Education Catholique). (PC)

Teachers also attend workshops and marking sessions of the Cambridge Examination Board at the MIE (Mauritius Institute of Education) conducted by senior examiners from Cambridge to gain knowledge about assessment practices. (PA)

Provision is also made for subject magazines and for training and enrichment courses of teachers. ... Teachers follow courses on such areas as ‘human values’ or ‘counselling’ to better equip them to face the reality of schools (PD)

However, there is a lot of criticism in the educational literature about professional development workshops being conducted by outside experts. Many researchers, including Borko (2004) and (Fullan, 2007), are adamant that professional learning is more effective when it is school-based, in the context of everyday work, built on the combined expertise of in-house staff members, and concerned with the learning needs of staff. They advocate that the most effective professional development activities should involve teachers in their respective schools meeting regularly to

explore common problems and seeking solutions based on shared experiences and collective wisdom so as to improve student learning outcomes.

Some schools rested on one-off ‘training’ workshops of relatively short duration that offered no sustained follow-up, imposed by central education authorities, as their ‘professional learning’ provision for teachers. Such programs were conducted through the involvement of outside experts or program authors who lectured or presented ideas directly to teachers. For instance, principals reported that:

Teachers participated in the ‘Adolescent Mental Health’ [training] workshop, run by qualified psychologists from the BEC (Bureau de l’Education Catholique). (PD)

Teachers participated in the ‘National Campaign Against HIV/AIDS’ training session, organised by the *Ministry of Education* in collaboration with the *Ministry of Health*. (PE)

None of these workshops used a peer coaching approach, collaborative problem solving, or other forms of school-based professional learning, and did not feed the particular needs of educators. They merely reinforced new policies or focused on new areas of concern for authorities. It can therefore be argued that the above ‘professional development’ efforts cited by the responding principals could not even be considered as professional learning per se. Moreover, the responding principals had no valid or defensible evidence to demonstrate that these practices were effective, if at all, in bringing improvements in student learning. Instead of having recourse to such one-size-fits-all ‘training’ sessions which take away from educators a significant amount of instruction time, schools would be much better off with professional development and learning infused in everyday practice, and tailored to the individual and collective needs of educators (Wayman, Jimerson & Cho, 2011).

Some participating principals also reported that their schools had induction or mentorship policies for beginning teachers. These were non-mandatory but were nevertheless being implemented at the school level at the discretion of the principal. Such internal arrangements in schools were described in the following words:

We have an induction program for newly appointed teachers under the supervision of a voluntary senior teacher. ... Beginning teachers are often uneasy and sometimes unprepared for the rigours of teaching and classroom management. Such training



program will not only save me grief but should help new teachers develop the confidence they need to perform well in the classroom. (PF)

Heads of department mentor new teachers joining the school, especially those new to the profession, who have just graduated from university, and design an appropriate induction program for them. ... Beginning teachers only have a vague idea of what it entails to be thrown in the educational arena. Things that they learn from the university are theoretical in nature. We have to train them and also hold high expectations from them. ... They must know exactly how we do things around here. (PE)

It seems that the main purpose of these so-called 'induction programs' were to indoctrinate newcomers to the profession into the status quo and dominant culture of the school, and to tame them into submission. Also, given the hierarchical mode of information management noted earlier in the participating schools, whereby in-service sessions were held and cascaded down from principals to middle managers and then to teachers to promulgate school protocol, it is hardly surprising that induction programs for newly recruited teachers in schools, where they existed, were associated with similar in-service structures used to disseminate school and departmental procedures and values and the various duties associated with their teaching assignment. However, such 'induction programs' seemed to overlook the capabilities of novice teachers to make professional decisions and exercise individual capacities to improve classroom practice. Their impetus remained vague with regards to a more learner-centered paradigm and a more thoughtful approach to beginning teachers' personal needs (Bartell, 2005). There is a general feeling that there is a (gratuitous) fear by school leaders that fresh ideas may disturb the status quo. Under such circumstances, it becomes problematic to appraise the potential that an induction program can have on a novice teacher's sense of self-efficacy (Bartlett *et al.*, 2005).

Yet, there is mounting research evidence (e.g. Darling-Hammond & Bransford, 2005; Ingersoll & Smith, 2004; Leithwood, Fullan & Watson, 2003) showing that quality induction programs can reduce attrition rates and offer professional support to teachers new to the profession. Young teachers must feel accepted as full, albeit junior, professional colleagues whose individuality and interests must be respected and their strengths used (Main & Hill, 2010). Most importantly, supporting entry

year teachers can and do improve both pedagogical practice and student learning (Leithwood, Fullan & Watson, 2003). However, the questions and uncertainty with which teachers enter the profession require far more than orientation sessions, a mentor, lists of resources, and a copy of school policy (Johnson & Kardos, 2002). It can be concluded that, in this Mauritian study, teacher induction programs, where they existed, and professional learning in general were far from being in alignment with the TQM philosophy.

## **5.7 Teamwork**

Teamwork is another important tenet of the TQM paradigm. Deming (1986, 2000) is adamant that the system of teamwork and collaboration in a quality driven organisation should be closely related to quality improvement teams, which are formal, permanent organisational structures empowered to achieve the goals of the organisation. Teamwork is a major component of the quality improvement process and is at the heart of the distributed, participatory styles of leadership, also endorsed by TQM, which enable a collective vision, as opposed to traditional forms of leadership concentrated on the solitary individual with a singular vision in a stand-alone setting (Falk & Mulford, 2001). Effective teamwork requires the spirit of cooperation, trust, complementation and synergetic relationship among members, all of which are necessary in the deployment of all TQM principles in schools (Lycke, 2003; Oakland, 2003).

In this study, ‘teamwork’ was perceived by principals to take on different forms in the participating schools. In most schools, according to principals’ own words, teamwork started with the leadership team of the school, and had the desirable effects of opening up communication channels and enhancing people’s sense of belonging to the school. Principals gave the following examples:

Through teams, there is an atmosphere of working together in the different activities. The management team of the school contributes to this team spirit through the arrangement of team building sessions for the staff. This is done to strengthen the cohesion among the staff even further. (PC)

The management team ensures effective communication with the teachers by means of a weekly planning letter. In this letter, the week's activities are outlined indicating each staff members' involvement. This makes them feel part of a valuable team. *(PB)*

Staff meetings here serve as a tool of communication and teamwork between the senior school leaders, the teachers and administrative staff. *(PE)*

However, a closer look at these comments reveals that teamwork was concentrated at the 'top' of the organisational hierarchy. Teachers did not appear to be part of such collaborative efforts, but were only informed what was going to happen and what were expected of them. These principals' notion of teamwork therefore sounds too hierarchical and formal to be deemed as 'teamwork' from a quality leadership perspective. It does not match with Deming's (1986, 2000) conception of teamwork, which has more to do with such issues as collaborative and teacher-determined professional learning, and teacher leadership in curriculum, pedagogy and assessment, for example. For example, the challenge for teachers as leaders within curriculum reform is to appraise the current operating context and establish a strategic vision for teaching and learning so that educational access and outcomes for all students are maximised (Starr & White, 2008), and all students are enabled to develop their full character as active Mauritian citizens and to play a role in shaping the future of Mauritius.

Disconcertingly, in some schools, 'professional learning' was viewed by principals as a remote process from a teamwork approach propounded by TQM. It was rather equated to 'personal' or 'individual' learning of individual staff members, and was primarily regarded as the teacher's own responsibility. This was evident in their comments such as:

The teachers are also responsible for acquiring and improving their own professional qualifications. *(PA)*

Teachers are adults who know how to take care of themselves. They know what they need to do to improve their own education and personal development. *(PB)*

It is required of teachers to put in all effort in the planning and preparation of their lessons and to be responsible for their own professional and personal development so as to teach more effectively. *(PE)*

These comments confirm that both professional learning and teamwork in these schools were far from being aligned with TQM. Yet, in other instances, principals made (contradictory) comments that were more suggestive of their idea of teamwork being in line with Deming's view. For example, they reported that teachers in the different subject areas worked together in subject meetings. This cooperation of teachers was expressed within the different grade groups and were more about teacher-agency, as the following comments reveal:

Teachers share responsibilities like rotation with the setting of examination papers and teachers responsible for a subject share their expertise and good practice with colleagues. *(PA)*

The dean of a specific [grade] sits together with the teachers of that grade during the weekly meetings of the staff and the school [leadership] team. This arrangement enables us to take care of matters related to students of that [grade], to make inputs on students being discussed and to sensitise other teachers to the needs of students. *(PD)*

With regular meetings being held between the dean and teachers of a specific form, ... the follow-up of student needs can be more agile and effective. *(PB)*

Incidentally, "the setting of examination papers" *(PA)* shows a very traditional approach to teaching and learning.

Committees were utilised in most participating schools to give structure to what principals implied as 'teamwork.' There were different committees for diverse areas such as discipline, extracurricular activities such as inter-college debate competitions, fund raising, physical resources, and in particular cases, even formed the backbone of the school's organisational structure. These committees were inclusive and involved teachers, students, parents and school leaders:

Teachers and members of the SRC (School Representative Council) work together in committees on matters such as punctuality and the after-school study programme for the students. *(PA)*

The committee system is 'structural' and 'fixed'. Each committee is co-chaired by a teacher and the assistant rector. Student leaders and parents are invited and can make inputs in the committees and decisions are made collectively. When committees have particular proposals they will submit them to the school's leadership team, but only after thorough research has been conducted. *(PF)*

The formal school leader and his/her closest ‘collaborators,’ however, remained responsible and accountable and retained the right of veto with regard to the overall strategic direction of the school. S/he could accept or reject the outcomes of ‘democracy.’ As one principal stated:

A parent could make inputs about school matters to the committee and the chairperson would submit the input to the school leadership team. Committee members know, however, that their powers are restricted and that the school [leadership] team has the final say on policy matters. (PF)

This comment is yet another clear indication that principals’ idea of teamwork was not aligned with the TQM philosophy. By and large, while the selected principals purported to demonstrate the importance of leaders’ commitment and visible involvement in the pursuit of quality, and despite their claims that they ‘distribute’ leadership, their comments instead suggested a hierarchy within their notion of distributed/shared leadership. There were many obvious and/or subtle discrepancies between principals’ comments and perceptions and the practical reality in schools.

## **5.8 Conclusion**

In this chapter, the data obtained from the qualitative part of the empirical study by means of individual in-depth interviews with a purposive sample of six school principals were presented and analysed with reference to the key principles of TQM identified in the literature review, since a quality management approach favouring TQM-like tenets is being encouraged by Mauritian education authorities.

In general, this research found that while Mauritian principals very much agreed with the usefulness of TQM tenets and, what’s more, claimed that they actually used them, in reality this was easier said than done and their comments were mainly rhetorical. They did not substantially put TQM notions into practice on a day-to-day basis, but rather sounded like good public relations people for themselves and their schools. Principals have learned to ‘talk the talk’ somewhat, but not ‘walk the talk.’ Moreover, in many cases, principals’ interpretations of their own leadership practices differed from those of quality proponents such as Deming and contemporary educational scholars by the likes of Leithwood and Hargreaves, and therefore proved to be misleading. In other instances, there were many contradictions and self-

interests revealed in principals' comments, and their leadership practices generally diverged substantially from the TQM philosophy. Moreover, principals did not appear to encourage critical questioning of the status quo, which could provide thinking and discussion about 'quality' improvement. Yet, the educational literature suggests that the areas of TQM ill practised and not practised by this group of principals could and do contribute to significant school improvement.

The main themes emerging in this chapter from the analysis of the data in the qualitative phase of the empirical study, together with those in the quantitative phase presented in the previous chapter, will be discussed in depth in the last chapter. Further implications for school leadership and school improvement will then also be elaborated. These will contribute to better understandings of how quality principles could be more systematically applied to raise educational standards in Mauritius and will also contribute to the school leadership literature (see also Ah-Teck & Starr, in press).

## *Chapter 6*

### **Discussion, implications and conclusions**

*Today's students are tomorrow's leaders and without quality education, we will continue to lose our competitive edge and lag even further behind the rest of the industrialized world at a time when we can least afford to fail. Ensuring educational quality is the only way to guarantee that national goals are met in a way that reflects the values and culture of society.*

M. E. Milakovich, *Improving Service Quality in the Global Economy* (2006)

#### **6.1 Introduction**

In Chapter 1, I articulated the dire need to improve quality in Mauritian schools. Public demands for more effective schools have urged the government to place mounting attention on the key role of school leaders – a professional group largely overlooked by the various educational reform movements of the past two decades in Mauritius. It is acknowledged that principals play a central role in building schools that are productive workplaces for teachers and promote vibrant learning environments for all students (Leithwood *et al.*, 2004, 2006). However, existing research-based knowledge in authentic contexts in Mauritius on practical ways to support them in providing quality-driven teaching and learning while managing all of the increasingly complex demands of the job is sparse. Hence my motivation to undertake the present research on exploring if Mauritian school leaders' current practices bear resemblance with the tenets of TQM and if they believed TQM could be more systematically applied for continual quality improvement in schools, as Mauritian education authorities are anticipating. Another objective was to investigate principals' perceptions about whether TQM-like tenets not currently in use could be usefully adapted for school improvement in Mauritius. Based on principals' responses, the research also explores implications for school leadership and school improvement in Mauritius.

In this final chapter, I provide a summary and discussion of my research findings with respect to both the quantitative and qualitative phases of the empirical study. For each phase, a discussion of implications for school leadership practice and scholarship follows (see section 1.4, *Research objective 3*). I also make

recommendations for future research directions. A few closing comments follow at the end of the chapter/thesis.

## **6.2 Research findings from the quantitative phase**

The quantitative phase of the empirical study focused on determining the extent to which primary and secondary school leadership practices in Mauritius corroborate with the TQM philosophy. To this end, I developed a valid and reliable self-assessment questionnaire – the *School Quality Assessment Questionnaire* (SQAQ) – for completion by Mauritian principals based mainly on the seven quality dimensions of the Baldrige Education Criteria for Performance Excellence framework. These quality dimensions are widely recognised as being compatible with the TQM philosophy (e.g. Badri *et al.*, 2006; Karathanos, 1999; Winn & Cameron, 1998). By providing empirical evidence of the nature and strength of the relationships between the leadership, systems and processes of primary and secondary schools and the ensuing outcomes, this study offers evidence on the current level of the quality climate in Mauritian schools, and also interesting implications for school leaders, policy-makers and researchers.

### **6.2.1 Discussion of findings**

In the quantitative study, background information on the participants to the SQAQ survey was described based on school type (primary or secondary), work experience, highest qualification, age and gender. It was noted that there were no significant differences in responses of principals by school type, highest qualification in the primary sector, and gender. However, significant differences were noted ( $p < 0.05$ ) in responses by work experience, highest qualification in the secondary sector, and age. Of these observations, the most remarkable one is that there were no significant differences in the responses of principals associated with the type of school they were leading. This is surprising since schools in the primary and secondary sectors have different organisational structures, staff profiles and pedagogical approaches, implying that different leadership styles could perhaps be expected.

A major finding of this research related to the crucial role of leadership in driving the system that produces outcomes, as assumed in the Baldrige Education Criteria for



Performance Excellence framework (1992-1996) (see section 2.3). The empirical evidence was produced with the testing of the research hypotheses  $H_1$  to  $H_{14}$  (see section 3.2.9). Hypotheses  $H_1$  to  $H_4$  addressed a causal influence of the *Leadership* dimension on each of the four system dimensions of *Strategic Planning*, *Information and Analysis*, *Faculty and Staff Focus*, and *Educational and Support Process Management*. It was found that *Leadership* had a statistically significant influence on these four dimensions, with the proportions of variation in these dimensions that was explained by *Leadership* varying between 30.6% and 56.5%. These gave support to the hypotheses  $H_1$  to  $H_4$ , which meant that *Leadership* was an overall driver of the inner workings of the system in Mauritian primary and secondary schools. These results are in agreement with previous research at the elementary and secondary school level (Olson, 2009; Poston Jr., 1997) and also in higher education (Badri *et al.*, 2006; Winn & Cameron, 1998) (see Table 6.1).

This research also gave support to an important causal relationship between *Leadership* and *Strategic Planning*. The influence of *Leadership* on *Strategic Planning*, with a correlation coefficient of 0.751, was relatively stronger than *Leadership*'s influence on the other system dimensions of *Information and Analysis*, *Faculty and Staff Focus*, and *Educational and Support Process Management* with associated correlation coefficients of 0.580, 0.553 and 0.558, respectively. The stronger influence of *Leadership* on *Strategic Planning* was also reported in other empirical studies (Winn & Cameron, 1998). This indicates that school principals recognised their critical role of developing strategic objectives (strategy development) and converting the strategic objectives into action plans to accomplish the objectives (strategy deployment).

<b>Study</b>	<b>Present study</b>	<b>Olson (2009)</b>	<b>Badri <i>et al.</i> (2006)</b>	<b>Winn and Cameron (1998)</b>	<b>Poston Jr. (1997)</b>
<b>Educational setting</b>	Primary and secondary schools	Elementary and secondary schools	Universities and colleges	One university	Public schools
<b>Location/country</b>	Mauritius	Minnesota, USA	UAE	USA	Iowa, USA
Is the assumed causal relationship between the pair of dimensions positive and statistically significant at the 0.05 level or less?					
<i>Driver dimension → system dimension</i>					
Leadership → Strategic Planning	✓	✓	✓	✓	✓
Leadership → Information and Analysis	✓	✓	✓	✓	✓
Leadership → Faculty and Staff Focus	✓	✓	✓	✓	✓
Leadership → Educational and Support Process Management	✓	✓	✓	✓	✓
<i>Driver dimension → outcome dimension</i>					
Leadership → Student and Stakeholder Focus	✓	X	✓	✓	✓
Leadership → School Performance Results	✓	X	✓	X	✓
<i>System dimension → outcome dimension</i>					
Strategic Planning → Student and Stakeholder Focus	✓	X	✓	✓	✓
Strategic Planning → School Performance Results	✓	X	✓	✓	✓
Information and Analysis → Student and Stakeholder Focus	✓	✓	✓	✓	✓
Information and Analysis → School Performance Results	✓	X	✓	✓	✓
Faculty and Staff Focus → Student and Stakeholder Focus	✓	✓	✓	✓	✓
Faculty and Staff Focus → School Performance Results	✓	✓	✓	✓	✓
Educational and Support Process Management → Student and Stakeholder Focus	✓	✓	✓	✓	✓
Educational and Support Process Management → School Performance Results	✓	✓	✓	✓	✓

**Table 6.1 Comparison of findings between the present and previous studies in education using the MBNQA framework**

Encouraging was the finding that *Leadership* had a statistically significant and direct influence on each of the two outcome dimensions of *Student and Stakeholder Focus* and *School Performance Results*, with a moderate influence on the former dimension and a weak influence on the latter dimension. These findings provided empirical support for the next two hypotheses,  $H_5$  and  $H_6$ . They also corroborate with empirical research by Badri *et al.* (2006) and Poston Jr. (1997). However, Olson (2009) did not find any direct linkages between *Leadership* and the two outcome dimensions, while Winn and Cameron (1998) could only find support for the direct impact of *Leadership* on *Student and Stakeholder Focus* but not on *School Performance Results* (see Table 6.1).

Furthermore, the regression analysis results supported the claim that the four system dimensions, individually and collectively, influenced each of the two outcome dimensions. Thus, there was empirical support given to the last eight hypotheses,  $H_7$  to  $H_{14}$ . Hence this study provided evidence that *Leadership's* role in school quality management systems was also indirect since it influenced the two outcomes dimensions through the four system dimensions. This is aligned with a burgeoning literature indicating the positive impact that school leaders have, mostly in an indirect way through the support and development of effective teachers and the implementation of effective organisational processes, on a range of academic and non-academic outcomes (Davis *et al.*, 2005; Gurr, Drysdale & Mulford, 2006; Leithwood *et al.*, 2004; Robinson, 2007). This also reinforces the claims of theorists who emphasise the importance of system and process improvement in achieving quality. For instance, Deming (1986, 2000) persistently asserted that a vast majority of quality problems and barriers cannot be attributed to employees' lack of motivation or skills *per se*, but rather to flaws in the design of systems and processes.

*Strategic Planning* had a statistically significant causal influence on both outcome dimensions. This result agrees with the outcome of other research carried out by Badri *et al.* (2006), Poston Jr. (1997) and Winn and Cameron (1997). However, Olson (2009) found that *Strategic Planning* did not exert such influence on either of the two outcome dimensions (see Table 6.1).

It was also found that *Information and Analysis* had a direct causal relationship on both outcome dimensions. Once again, this finding concurs with those of Badri *et al.*

(2006), Poston Jr. (1997) and Winn and Cameron (1997), but Olson (2009) only found a direct causal influence of *Information and Analysis* on *Student and Stakeholder Focus* and not on *School Performance Results* (see Table 6.1). In the Mauritian study, the relationship indicated that effective use of measurement, information and data, all addressed in the Baldrige Criteria, represented key assets in the organisational performance.

The research found that *Faculty and Staff Focus* had a relatively strong positive causal influence on *Student and Stakeholder Focus*, with a correlation coefficient of 0.759 between them (the second highest correlation coefficient between any two dimensions). There was another relatively strong causal relationship from *Educational and Support Process Management* to *Student and Stakeholder Focus*; this was indeed the largest statistically significant individual relationship between any two quality dimensions with the former dimension accounting for 64.5% of the total variation in the latter dimension and a correlation coefficient of 0.803 between them. These results provide evidence that the design and delivery of educational and non-educational processes in Mauritian primary and secondary schools were critical to student and stakeholder satisfaction and should be managed from their perspectives. A similar conclusion was reached by Badri *et al.* (2006) in their study.

In summary, considering the results of the correlation and regression analyses, the conclusion is that all the 14 hypotheses,  $H_1$  through  $H_{14}$ , were empirically supported in the Mauritian study, giving credence to the general MBNQA theory that ‘leadership drives the system which creates results’ (Meyer & Collier, 2001; Pannirselvam & Ferguson, 2001). In other words, school leaders in Mauritius played a critical role in shaping the inner workings of the organisational operations and systems, and ultimately its outcomes.

### **6.2.2 Implications for school leadership and school improvement**

Based on the findings and conclusions of this Mauritian study, a number of important implications emerge for both leadership practice and scholarship.

The findings demonstrate clearly the vital role of principals in the effective implementation of quality initiatives in primary and secondary schools. These results

corroborate with those of Badri *et al.* (2006) and Winn and Cameron (1998), using a similar Baldrige framework methodology, that strong support by senior leaders act as a catalyst in the implementation of quality management systems in higher education. These results are also in agreement with the often cited literature view that the first and crucial step in implementing and sustaining TQM in schools is to obtain the visible commitment and support from leaders in making the principles and practices embedded in the culture of the organisation (Bonstingl, 2001; Deming, 1986, 2000; González & Guillén, 2002; Perles, 2002). This upholds the notion that despite endorsements of distributed leadership in schools, the formal leader is still a major power broker.

An important implication is that leadership should be a key facilitator in achieving lasting improvement in primary and secondary schools in Mauritius. Principals should have a significant influence on, and the ability to make changes to, the educational system. Winn and Cameron (1998, p. 508) incisively point out, albeit in a general organisational context, that:

Whereas it is fashionable to highlight presidents or CEOs who have seemingly turned around organizations single-handedly, who have been dubbed the savior or white knight in difficult times, or who have produced dramatic results in their tenure as leader, it is not sufficient to end these stories without further observation. They miss the key determinant in success.

This often forgotten but crucial link is that school leaders determine success to a large extent by guiding the system – systematically collecting and using information, planning strategically, focusing on the development and well-being of staff, and designing and managing effectively an educational and support process to satisfy the needs and expectations of students and other stakeholders and to create the quality outcomes. Thus, the four system dimensions of *Strategic Planning, Information and Analysis, Faculty and Staff Focus* and *Educational and Support Process Management* are to be seen as enablers of quality and performance excellence in primary and secondary education. As Leithwood *et al.* (2004, p. 70) affirm, school leaders are the ones who can best “make sense of and productively respond to both external policy initiatives and local needs and priorities, and of how those practices seep into the fabric of the education system, improving its overall quality and substantially adding value to our student’s learning.” However, since principals in

this study were found to only focus on their own schools as stand-alone systems (see section 6.3.1), the whole Mauritian educational system itself remains discriminatory.

Another consequence of this quantitative research was the development of the SQAQ, which has proved to be a valid and reliable tool in assessing the perceptions of principals about the levels of quality of their school systems in terms of the seven quality dimensions of the MBNQA Education Criteria for Performance Excellence. Whilst educational institutions might aspire to improve the quality of their programs and services by focusing on sound principles embedded in the philosophy of a single quality theorist to plan the process, these philosophies almost invariably never equip them with a comprehensive system for measurement and evaluation of quality efforts at all levels in the organisation (Badri *et al.*, 2006). The MBNQA framework was developed to provide such a comprehensive framework, integrating the seemingly divergent tenets espoused by the most influential quality experts (Winn & Cameron, 1998).

Hence, whilst the SQAQ does not have the depth of a comprehensive Baldrige self-assessment, it offers considerable insight into the use of the Baldrige framework as a useful tool to pursue quality improvement actions at the organisational level. Greater use of this research tool in other empirical studies could lead to further development and refinement in its construct validity and quality of the perceived quality assessment process, given feedback and revision of items over time. The SQAQ and similar tools could then be effectively employed by school leaders as a self-assessment instrument.

Another implication for school principals in Mauritius stems from the analysis of the construct validity of the SQAQ. The results of the correlation and regression analyses established the positive nature and statistically significant relationships among the seven quality dimensions. These suggest that quality improvement initiatives and efforts that focus barely on one or a few of these dimensions would not bring optimal results. School leaders should therefore develop a holistic approach based on a strong commitment and synchronised efforts to improvement with respect to all the system and outcome dimensions so as to realise the often-stated goal by the Mauritian government of ‘world-class quality education’ (MEHR, 2006a, 2006b; MESR, 2003).

## **6.3 Research findings from the qualitative phase**

### **6.3.1 Discussion of findings**

The subsequent qualitative phase of this study involved the conduct of semi-structured, individual interviews with a purposive sample of six principals. This interview phase did not confirm the finding of the questionnaire survey that school principals were actively using quality tenets based on the dimensions of the Baldrige Education Criteria or simply on the TQM philosophy. The overall finding of the qualitative study is that while Mauritian principals were very much in agreement with TQM tenets and, what's more, found them useful and claimed that they actually used them, in reality this was easier said than done and their discourses were mainly theoretical. In the minds of the principals, many TQM tenets were employed in their schools. However, in several instances, their interpretations of their own leadership practices revealed many contradictions and instances of self-interest, with practices diverging markedly from the TQM philosophy. The main themes from the interviews are categorised under the headings below (see also Ah-Teck & Starr, in press).

#### ***Leadership***

- *Distributed leadership*

A major finding of this research is that while the Mauritian principals interviewed were comfortable with the current notion of distributed leadership and voiced compellingly that they put it into practice, in many instances, their comments revealed contradictions to a genuinely collaborative approach. These principals did not seem to trust a large array of stakeholders within the school community. Instead, they placed more professional responsibility in the hands of those who would buy into their vision and believe in and support their own ways of 'seeing and doing things.' It was a vision imposed from above and there was no readiness to move forward towards change that involved everyone's contribution. Principals were essentially undemocratic and autocratic leaders who held heroic conceptions of themselves. Their underlying leadership style was in total opposition to TQM principles that endorse distributed leadership and a bottom-up approach, and served

their own interests. Yet, they considered themselves as dedicated, committed, self-sacrificing and the drivers of change for improvement.

Moreover, the responses of Mauritian principals infer that the formal school leader should remain responsible and accountable and retain the right of veto in the strategic direction of the school. The respondents therefore had an erroneous understanding which suggested that those in charge of the system are the only ones who could change that system by their presence and commitment. It has to be noted that formal leaders are not the only agents of change (Fullan, 2007). If leadership were truly distributed and decisions were made democratically, then everyone within the team would be a powerful agent of change. By and large, principals agreed to the importance of promoting collaborative approaches and ensuring that decision-making involved those most affected by outcomes, yet they remained evasive when prompted into elaborating the sorts of decisions involving stakeholders. The discourse remained basically theoretical. Therefore, it was surprising to find the principals claiming that teachers in their respective schools were also ‘leaders.’ Classroom and discipline leadership was as far as the concept went for teachers.

In the conservative Mauritian context where school leadership is predominantly equated with the actions of principals who are the sole leaders and managers of schools, the educational system expects and demands that they are in control. Principals are squeezed between current progressive notions of school leadership and very autocratic government demands for certain policies to be implemented, with principals being responsible for this (despite government ideas about how school improvement might occur). They might wish to pursue distributed leadership styles but change is always painstakingly slow and government demands are usually pressing (Hargreaves & Fink, 2003; Starr, in press (b)). Thus they are left with no option than to use their power and formal position to demand conformity from staff in autocratic ways.

The distributed leadership perspective is also borne out by much current literature in educational leadership (e.g. Gurr, 2008; Leithwood & Riehl, 2003; Leithwood *et al.*, 2006; Silins & Mulford, 2002). Moreover, “[s]ustainable leadership is distributed leadership – as an accurate description of how much leadership is already exercised, and also as an ambition for what leadership can, more deliberately, become”



(Hargreaves, 2007, p. 225). Surely, “distributed leadership is an idea whose time has come” (Gronn, 2000, p. 333). Mauritian education authorities recognise the need for change through its espoused support for TQM-like tenets, although demands for improvement appear to overlook this aspect of the philosophy.

- *Ethical/moral leadership*

Another notable finding of this qualitative study was the identification of an overriding aim – the ultimate transformation of students – that school leaders claimed they achieved by building their practices on a foundation of values and ethics. Principals implied that the values and ethics that they upheld underpinned their vision for their school and shaped their behaviours in their daily professional lives. These principals voiced their strong commitment for the integral development and well-being of the children placed in their care. In so doing, they claimed that they promoted authentic learning, over and above the pursuit of academic achievement, that related the students’ search for meaning and purpose in their lives to a variety of personal experiences in the curriculum. From the principals’ perspective, therefore, authentic leadership practices seemed to be the key to unlocking the ultimate potential of TQM in schools which, in turn, had a transformative effect on students.

The Mauritian study appears to support Starratt’s (2004) view that school leadership should be very much concerned with authentic leadership, focusing “on ethics and morality in actions and interactions” (Duignan, 2007, p. 3). However, this study also reveals a major contradiction: even if school leaders adopted a discourse towards developing and supporting a culture that promotes their authentic self and authentic dimensions of teaching and learning in their schools, in actual fact, this was easier said than done. This could largely explain why the main finding in the quantitative phase of this study does not tally with those of the qualitative part. To recap, in the former phase, it was found that *Leadership*, as the driver dimension, had a statistically significant and direct influence on the outcome dimensions of *Student and Stakeholder Focus* and *School Performance Results*, but there was little evidence to substantiate this in the latter phase.

Next, this study identified a set of relational values promoted by the participating principals for students and staff. These included *trust*, *respect* for the dignity and worth of others, and *fairness*. These findings are congruent with the outcomes of other research compiled across different contexts. For example, optimism, respect, trust and intention were those values upon which the *invitational leadership* of British headteachers was founded (Day *et al.*, 2000) while trust, caring and empathy were among the values that influenced the practice of successful school leaders in Indonesia (Raihani, 2006; Raihani & Gurr, 2006). That principals in Mauritius tended to demonstrate a high capacity for promoting relational values among students and staff ought to be a most encouraging finding, assuming that they were ‘walking their talk,’ as research has shown that change sustainability is determined by the level of ‘relational trust’ that permeates a school (Bryk & Schneider, 2003). Similarly, a high level of trust in school leaders impacts positively on student academic outcomes (Beatty & Brew, 2005).

It also appeared that, the values school leaders in this study upheld were a manifestation of their faith in action resulting in a work of *love* and *care* for the full human development of students, again substantiating the findings of Day *et al.* (2000), and this was a characteristic that was not restricted to religious (Catholic) schools although it did not extend to all students in all schools.

Another value strongly suggested by principals in this study was that of *social justice*. This seemed to be the foundation on which an inclusive and caring school community was built. Most schools involved in the interviews were perceived to be inviting as they welcomed people from all cultures and paid particular attention to the needy, but given the national policy mandated from above, they had not much choice. Moreover, given the ‘star-school system,’ strictly speaking, social justice was actually elusive and precluded by the exclusive nature of star schools.

At the same time, unsurprisingly, the pursuit of *excellence* as a value was predominantly felt in the participating schools. In a culture of high expectations and support, principals acknowledged students’ ability differences and suggested that they promoted educational approaches tailored to their individual needs and worked simultaneously towards student’s personal excellence and citizenship although there appeared to be an intolerance of the less able students. Indeed, principals equated

‘quality’ with excellence and viewed their jobs as having to ensure excellent student results and outcomes.

By and large, school leaders in this Mauritian study seemed to hint that it would be desirable to go along the lines of what Duignan (2005), Fullan (2003) and Sergiovanni (2006) all refer to as the ‘moral imperative’ of school leadership, whereby schools “hav[e] a system where all students learn, the gap between high and low performance becomes greatly reduced and what people learn enables them to be successful citizens and workers in a morally based knowledge society” (Fullan, 2003, p. 29). Put another way, principals’ responses in this study lend credibility to the view that the moral and ethical imperatives which underpin school leadership, caring and inclusive school communities, and the transformative school leadership approach in the TQM scenario are not discrete entities but interactive aspects of the same package.

The Mauritian study also gives credence, at least in theory, to Starratt’s (2004) contention that school leadership requires a commitment to three particular ethics: *authenticity*, *responsibility* and *presence*. Starratt’s three types of ethics challenge principals to attend to the wholeness of teachers in building teacher capacity in schools by being more proactively responsible for supporting and enabling teachers to create an ethos that encourage deeper, authentic dimensions of learning. Concurrently, these ethics also urge principals to be more fully aware of and present to the transformational potential in student learning. Ultimately, corresponding to Starratt’s framework, school leaders share leadership responsibilities with other stakeholders, especially teachers and students, in what turns out to be a humane, caring and successful school community (Bredeson, 2005). Yet principals did not trust these stakeholders to be involved in major decision-making. Leadership was not shared or distributed; it was ‘consultative’ at best (see also Mafora, 2011; Starr, in press (a)).

### ***Focus on the stakeholder***

In this Mauritian study, principals perceived that their schools were not only focusing on students and tapping into the resources of their staff in their educative mission, but were also developing links with parents, other educational institutions, businesses

and the community. However, in practice principals' main focus was to secure stakeholders' attention through marketing and public relation strategies, and not through collaboration in the schools' operations, decision-making or governance. There were several instances of parents, for example, being actively dissuaded from participating in decision-making.

In general, it can be concluded that in all the sampled schools, parents and students as primary stakeholders have less professional say than the educators, a widespread phenomenon coined by Gannicott (1997) as 'provider capture', whereby schooling is controlled by the people who 'produce' it rather than by those who 'consume' it (Gannicott, 1997; Ward & Eden, 2009). It is easy for the needs and demands of central education authorities to take precedence in policy making and regulatory activities. This results in their all encompassing bureaucratic arms controlling the work of schools and in turn keeping stakeholders at arm's length to abide by the decisions of school leaders whose vested power allows them to act as intermediaries in implementing decisions from above.

Yet, there is substantial evidence from the literature that supports the building of relationships with all stakeholders inside and outside the school, with school leaders viewing themselves as collaborators of one another and of teachers, students, parents, businesses and community members (Bonstingl, 2001). This is perceived as essential for ensuring sustainable improvements in quality performance (Deming, 1986, 2000; Oakland, 2003) and developing a learning organisation (Gandolfi, 2006; Senge *et al.*, 2000) in which fear by gratuitous bureaucratic rules and regulations is driven out (Table 2.2, Deming's Point 8) in favour of genuinely distributed leadership resulting in empowerment of people at all levels.

### ***Commitment to change and continuous improvement***

Like the rest of the world, schools in Mauritius are changing significantly. School improvement, education reform and similar themes of renewal have been an integral part of Mauritian education for the past twenty years and beyond if we consider earlier waves of reform (MEAC, 1991; MESR, 1998, 2001a, 2001b, 2003). Learning how to successfully implement changes in the current educational and economic contexts is particularly important, especially at a time of a huge variety of initiatives

and innovations and when there are competing government reforms being promoted in schools concurrently.

The empirical evidence in this study points out, however, that school leaders have a mounting task in managing the level of resistance to change and in aligning teachers' work towards their vision and government objectives (see also Starr, in press (b)). It cannot be overemphasised that while the quality of teaching has a powerful influence on student motivation and achievement, it is rather the quality of leadership that determines, in the first place, the motivation of teachers and the quality of teaching in the classroom (Fullan, 2007). Viewed from this angle, teachers' satisfaction and perceptions of the principal in leading the change process would directly have an impact on the success rate of the new program of enhancing students' achievement. School leaders, in Mauritius as elsewhere, remain powerful social actors in the dynamics of school change processes (Starr, in press (b)).

In accordance with the literature (e.g. Evans, 2001; Hargreaves, 2005), the participating principals unanimously agreed on excellence in people management as an important aspect of leading and managing to ensure successful change and improvement. The human element is crucial in implementing change and TQM, in general, because it is through people that excellence comes to pass. This way of leading should include the valuing and respecting of people. Communication between stakeholders should comprise interaction that allows people to understand the need and expediency for change and to understand each other's needs. Organisationally, creating and maintaining channels of communication and knowledge-sharing among role players can improve how knowledge flows into and through the learning organisation (Senge, 2006). It also provides new opportunities for feedback on how and whether structures and processes are working as intended and anticipated.

While principals in this study pointed out the importance of collaboration of teachers, parents, support staff and local authorities, and synchronisation of their roles to the processes of school improvement, sadly, the stakeholders most directly concerned with change initiatives, namely students, appeared to have been left out of the change equation. Principals' comments indicating students' involvement in change decisions and processes were strikingly missing. Yet, research shows that

when students are not involved in change decisions or such decisions are not explained to them, “they yearn for and cling to ways of learning that are familiar to them and become the school’s most powerful protectors of the past” (Hargreaves, 2005, p. 2). Once leadership has been distributed to and developed in all the adult stakeholders in a school, it might then be fitting to include children in the development of leadership capacity and potential (West-Burnham, 2004).

Principals’ responses suggesting that success in leading a change program in schools depends heavily on the leader’s ability to influence teachers’ perceptions has another important implication. It means that trust is an important element that has to be built up by the school leader, since the relationship between the leader and the led is likely to have an impact on other future change programs. As Sallis (2002, p. 24) points out, “[t]o create a continuous improvement culture, [school leaders] have to trust their staff and to delegate decisions to the appropriate level to give staff the responsibility to deliver quality within their own sphere.” This highlights the importance of addressing explicitly the ethical dimension of school leadership in the pursuit of quality in schools. It means that change efforts should be built on a shared moral purpose and be consistent with the school’s values and ethics (Fullan, 2001). Towards this end, creating and maintaining an atmosphere of open and honest communication throughout the school was perceived by the responding principals as a critical factor for the success of change efforts. This study further indicates that in order to reap the full benefits, a change initiative should be nurtured through collaborative approaches, and not enforced.

This study also reveals that the ‘heavy hand’ of government often imposes educational reforms on schools, with school leaders acting as the ‘gate-keepers’ of such major change agendas (see also Starr, in press (b); Thomson, 2008). Principals, however, are not partners in policy decisions. The failure or inability of Mauritian principals to fully commit themselves to the TQM philosophy and to achieve quality and genuine school improvement could largely be explained by autocratic government demands for policy implementation, with principals positioning themselves as middle managers and abiding by orders received from the upper echelon of the wider organisational hierarchy even though the government itself espouses distributed leadership and a TQM-like approach. Principals feel they have to be authoritarian and coercive to some extent because often policy change is

unpopular and major change is difficult to lead (Starr, in press (b)). This is exacerbated by the shifting political interventions as the Mauritian government changes, with each new regime bringing its own assortment of innovations which are often in conflict with earlier ones. In such circumstances, as Hargreaves and Fink (2003, p. 693) argue, “[e]ducational change is rarely easy to make, always hard to justify and almost impossible to sustain.” It is perhaps no wonder that the structure of schooling and practice of teaching in Mauritius have remained remarkably stable over decades amidst radical but ephemeral reforms (see also Evans, 2001). However, if TQM demands certain compliant behaviours at the micro level, then these should also occur at the national level. The government needs to make overtures to trust schools and their principals.

### ***Decision-making based on data***

A notable finding of the questionnaire study, namely that the *Information and Analysis* dimension played the least important, albeit non-negligible, role in principals’ leadership practices among all quality dimensions considered, was confirmed in the interview phase. The use of data, including benchmarking, to measure work quality and refinement was not an area of strength of the principals. The principals’ responses are in agreement with the observations made by Evans (2007) that measurement, analysis, and knowledge management efforts are often the least advanced of the quality dimensions within organisations, often because “the discipline required to establish and maintain an effective performance measurement system is viewed as an arduous task” (Evans, 2007, p. 519). Principals’ lack of time and lack of confidence due to their inadequate knowledge of statistics were additional barriers to the use of tools and techniques for systematic data collection and analysis, again corroborating with other research findings (e.g. Earl & Fullan, 2003; Schildkamp & Kuiper, 2010; Shen & Cooley, 2008). Thus, decision-making based on facts and evidence, as a requirement of TQM, was not totally substantiated in the Mauritian study.

The problem is exacerbated by the fact that these principals and their staff did not have any professional learning opportunities in the area of carrying out research, data collection or data interpretation. This too is not an uncommon phenomenon, as evidenced by the findings of research conducted world-wide (Earl & Fullan, 2003;

Herman & Gribbons, 2001; Schildkamp & Kuiper, 2010; Shen & Cooley, 2008; Vanhoof *et al.*, 2011). “Rarely does teaching rhetoric include program planning, performance-based decision making, or the intricacy of data collection, analysis, and interpretation. These are new principles in the culture of most schools” (Herman & Gribbons, 2001, p. 2). Yet, the principals interviewed quite rightly pointed out, as Earl and Fullan (2003) do, that a distinction should be made between ‘data’ in their crude, original form and processed data resulting in valuable and usable ‘information’ and ultimately ‘knowledge’ that may enable informed decisions to be made for school improvement.

There was strong agreement among the principals as to the potential advantages that would accrue from data usage for decision-making purposes. Hence, there is an urgency to determine the current level of “leaders’ [and teachers’] expertise in accessing, generating, managing, interpreting, and acting on data” (Knapp *et al.*, 2006, p. 39). It goes without saying that principals and teachers should also be allotted time to engage in professional learning opportunities to improve their knowledge and skills in handling data. However, care will have to be taken so that unintended or undesirable effects do not occur as a result of an overemphasis on data-driven decision-making – for example, reduced motivation among teachers due to extra workload or narrow focus on the tested curriculum (Schildkamp & Teddlie, 2008).

Concurrently, the principals interviewed felt strongly that a qualitative view based on the professional discourses and lived experiences of educators that would enable informed decisions should be equally valorised. This also has clear parallels with research by Seashore Louis, Febey and Schroeder (2005) who found that teachers in secondary schools deemed to have a strong teacher culture that supported quality education relied heavily on anecdotal data, intuition, and experience rather than systematically collected data when making decisions about teacher effectiveness. The evidence in this study therefore suggests that data “represent a tool for decision-making, but the human element and human judgement cannot be divorced from the process” (Shen & Cooley, 2008, p. 326). Hence school leaders’ and teachers’ quality decisions should not be totally ‘driven’ by or ‘based’ on data as in strict TQM parlance, but, as Knapp *et al.* (2006) argue, they should rather be ‘informed’ by data, otherwise leadership decisions based on data could be misleading.



### *Professional learning*

Professional learning, together with distributed leadership, are the areas of leadership practice in the sampled schools that were found to be the least aligned with the TQM paradigm. According to the principals interviewed, professional learning opportunities were made available to staff in the form of staff development programs for heads of department and heads of year, which they claimed they were conducting themselves. However, the true purpose of these in-service ‘training’ sessions seemed to be ad hoc orientation sessions to disseminate school protocols and policies and, therefore, cannot be called ‘professional learning’ as such. Effective professional learning should instead be purposefully directed and focused on curriculum or pedagogy or both (Garet *et al.*, 2001), and concerned with creating and sustaining a school climate that empowers teachers to be the architects of their own professional development and to foster their leadership capacity (Cherubini, 2007). In other words, situational demands should determine professional development, and not necessarily generic needs as the principals in this study suggested.

Principals also reported that teachers in their schools received support through in-service departmental workshops supervised by heads of department with the aim of continually improving their knowledge and skills. However, learning which is compartmentalised into artificial subject fields is contrary to Deming’s systemic view of an organisation, where quality is enhanced by demolishing barriers between traditional departments (Table 2.2, Deming’s Point 9) and promoting cooperative ways of working. Improvement of student learning is an interdisciplinary task (Berry, 1997). The interdependencies of real life which involve the combined use of a number of skills should suggest a direction for school activities such as mathematics, languages, science and social studies, but there was no evidence of such integrated learning and cross-discipline collaborative endeavours. This line of reasoning is consistent with research evidence on organisational learning which suggests that connecting people who speak from diverse perspectives and experiences is essential to organisational health and effectiveness (Senge, 2006).

Moreover, there was evidence in this study of schools welcoming outside experts to conduct professional development courses on their premises while others were sending teachers to attend externally-based enrichment courses and seminars on

various educational matters. However, research indicates that the most efficient professional learning programs are those that are school-based, embedded in practice, regularly occurring, and build on the collective wisdom and shared experiences of teachers working to solve common problems (Borko, 2004; Darling-Hammond & Bransford, 2005; Fullan, 2007). Conversely, other research shows that teachers became frustrated with the additional work that resulted from having to leave their classrooms for long periods of time to attend professional development workshops and even opted out of participation entirely (Wayman, Jimerson & Cho, 2011). Correspondingly, a decline in resistance to participation in professional development by educators was noted when the learning happened in classroom contexts (see also Gallucci, 2008). Hence, in general, professional learning does not have to stem from an ‘expert’, but rather requires collaborative efforts involving teachers with a genuine desire to improve their practice by engaging with colleagues and sharing ideas with knowledgeable others (Wayman, Jimerson & Cho, 2011).

Turning to initial teacher induction as an important component of professional learning in schools, it has to be noted that Mauritius does not currently regulate a mandatory, formal teacher induction program. Given that teachers are at the heart of educational improvement yet beginning teachers receive no organised professional support, it is intriguing to understand the interaction in Mauritius between professional formation and beginning teachers’ sense of self-efficacy (Bartlett *et al.*, 2005). Even more disquieting is the fact that, in Mauritius, the minimum qualification presently required to enter the teaching profession is a bachelor degree in the subject in which the applicant wishes to teach, and the possession of an initial teacher training qualification, such as the *Postgraduate Certificate of Education* (PGCE), is merely viewed as an additional qualification which may offer a competitive advantage in climbing one’s career path to administration or formal leadership positions.

Nevertheless, in this study, induction or mentorship policies for beginning teachers were found to exist in some schools, and were being implemented at the school level at the discretion of the principal. Still, judging from the principals’ own comments, it appears that beginning teachers’ individual experiences and unique strengths were being systematically rejected at these induction sessions in favour of ‘real world’ techniques which, according to Chodzinski (1993), are simply traditional approaches

to teaching practices that are most familiar to beginning teachers based largely on their own experience as students. It is easy to imagine, then, that new teachers who are excited by a novel pedagogical approach from the university become disenchanted when confronted by a principal or an induction implementer who insists that it won't work in the real world. In this sense, induction programs, if any, and professional learning opportunities in general were wasted and did not match the expectations of a TQM culture as propounded by Deming and other scholars.

### ***Teamwork***

This study finds that current Mauritian school leadership practice, at least in the sampled schools, is focused on the formal leader and ignores the leadership capacity and potential that exists throughout the school. "Morally and practically, the emphasis on the leader is inappropriate and needs to be replaced by recognition of leadership as a collective capacity that is reflected in structures, processes and relationships" (West-Burnham, 2004, p. 1). Teams are likely to be a powerful way of developing potential and capacity. The most prominent feature is that of teams communicating laterally and their closeness to internal and external stakeholders (Lycke, 2003). Teams can be viewed "as nurseries where there are abundant opportunities to develop and learn the artistry of leadership in a secure and supportive environment" (West-Burnham, 2004, p. 5).

In this study, however, principals were generally found to be adhering to a very traditional conception of teamwork where the school leader or another manager would take control and preside over the destiny of the group of people assembled for a specific function or project. In all cases, formal school leaders were adamant that they had to retain the right to oversee the strategic direction of the school or that they were the only ones in charge of the system. Yet, they made contradictory comments about an emphasis on building effective working relationships. In general, while principals claimed their penchant to collaborative approaches centred on issues such as curriculum pedagogy and assessment, their very own comments revealed a major contradiction – leadership was not distributed but was rather concentrated at 'the top' and was very much concerned with the implementation of policy directives.

A most obvious departure from Deming's notion of teamwork is that some principals felt that professional learning ought to be a matter of the individual teacher's own responsibility. Deming (1986, 2000) makes a distinction between the impact of individual learning and that of team learning, and recommends breaking down barriers between departments within the organisation (Table 2.2, Deming's Point 9). Individuals learn all the time and yet there may be no organisational learning (Senge *et al.*, 2000). If teams learn, they become micro-cosmic for learning throughout the organisation. Team accomplishments can set the tone and establish standards for learning together for the larger organisation. The key point here is that teamwork recognises and uses complexity in a way that individuals are unable to (Oakland, 2003; Uhlfelder, 2000).

### ***Focus on the system***

Another significant finding in this study is that none of the principals interviewed assumed their leadership role as a systemic concern extending beyond their own schools to 'partner' other sub-optimised schools within the wider educational system or suggested concerns about enhancing the experience and outcomes of students other than those in their own schools. Whatever the publicly stated vision of the participating schools, in reality, principals conceived their leadership as bounded by their own interests and those of their schools. They were focused on what was happening in their own schools as stand-alone sites. Collective responsibility in the Mauritian educational system was a far cry from reality and, at least in the sampled schools, the impetus to compete and succeed at the expense of other schools remained strong. Principals also perceived that any gestures of assistance to other schools would be cynically rejected, in contradistinction to the TQM stance that the quest for quality should be built on strong linkages with both internal and external stakeholders (Bonstingl, 2001; Deming, 1986, 2000).

Mauritius is such a small country that the educational system can be viewed as a single social organisation composed of many schools, similar to a 'school district' in some other countries. This larger system needs to constantly improve as an entity if Mauritius is to raise educational standards over the long term. Besides, raising a country's economic competitiveness necessitates curtailing competition in education, not increasing it (Caro, 2010). The way forward in the drive towards total quality is

to improve constantly and forever the system by building partnerships of trust and cooperation among educational institutions to support each other's continuous improvement efforts. There is a burgeoning literature indicating that partnerships can significantly improve the learning experience, achievement and life chances of students (e.g. Higham & Yeomans, 2005; Lumby & Morrison, 2006). Such networks of support at the macro level are essential for learning and improvement to be optimised at the micro level (Bonstingl, 2001).

If school leaders, policy makers and central education authorities in Mauritius obstinately continue to envision the educational leadership arena as delimited by the traditional structure in which single schools function autonomously, then they will not reflect cooperation and mutuality, or in Gronn's (2003, p. 35) term "concertive action", in trusting partnerships with alignment of goals and values (Gronn, 2008; Lumby & Morrison, 2006). Neither will the Mauritian educational system liberate itself from its present ingrained competitive orientation which blatantly applauds the reinforcement of stratified prestigious, so-called 'star' schools to the detriment of a significant majority of students in 'weaker' schools. In the current educational context in Mauritius, therefore, real educational leadership would be for school leaders and central education authorities to have the courage to challenge the so-called 'star-school system' as an issue of social injustice. It is important to realise that real or authentic educational leadership should demonstrate a concern for education policy and practice, and learning outcomes of all children beyond the confines of a single institution (Starr, in press (a)).

Hence, and in accordance with the TQM paradigm, it makes sense that educational leadership in Mauritius should be conceived as a collective responsibility 'across' schools and 'with' other schools, rather than 'within just one' school, that foment alignment of goals and values and partnership-wide commitment. For example, 'star' schools could partner other schools by facilitating arrangements to send students to use their resources and by providing curriculum elements which these less well endowed schools could not offer themselves, thus "solving difficult issues created by a curriculum ill suited to some learners and allowing retention on roll of those who might otherwise opt out psychologically or physically" (Lumby & Morrison, 2006, p. 5). Collaboration could involve more than a mere transition strategy to move students from non-star to star schools to access learning and could exist amongst

non-star schools. Research suggests benefits for all students and staff through schools networking, clustering, merging and connecting in tangible ways (Higham & Yeomans, 2005; Lumby & Morrison, 2006; Starr & White, 2008). By pooling resources and agreeing on some degree of mutual development, schools could create new possibilities in ways that would not otherwise have been possible.

Another important point raised in the present analysis is that school leaders' had a misleading conception of business and community 'partnerships', essentially viewing these as strategies to attract funding and material gains, instead of collaborative approaches to improve the design and delivery of educational programmes and services. From an ethical point of view, schools should also rather be sensitive to and address issues of public concern such as health, poverty, crime, public accountability and environmental matters, and to identify the real needs of its stakeholders and the community as a whole (NIST, 2004, 2010). When this happens, the school leaders' influence projects outwards, directly and through their influence over the shared values in the school (González & Guillén, 2002).

In Mauritius, however, schools are under no statutory obligations to meet governmental requirements for public involvement, but even if this were the case, they should treat these requirements as opportunities for improvement beyond mere compliance. Schools could engage in partnerships of trust in which agreed values are seen as critical, leading to an alignment of direction, and its enactment through common systems, for example of quality assurance and behaviour management. In this ethical conception of partnership, the ultimate aim is not so much a question of assembling distinct components, or working collectively to extend the curriculum in relatively trivial manners, as to create one coherent system based on agreed values and goals for the common good of all students in a defined geographical region (Lumby & Morrison, 2006) or may be in the whole of Mauritius.

### **6.3.2 Challenges of globalisation to education in Mauritius**

The thrust for the 2001 educational reform in Mauritius (see Chapter 1) has its origin in concerns over equity and access, and global competitiveness. The equity concern is linked to the persistent poor performance of students at the Certificate of Primary Education (CPE) examinations at the end of primary schooling with a failure rate of

30% to 40% each year, while the access concern is about the resulting 'bottleneck situation' limiting access to a few highly regarded 'star' secondary schools. The concern over global competitiveness has been prompted by the slowing down of the Mauritian economy as the Export Processing Zone (EPZ) sector suffered from competition from Asian countries, especially China which emerged as a low-cost competitor. The current educational reform initiatives are therefore also aimed at addressing the increasing challenges brought about by globalisation. Such government moves towards meeting the challenges of globalisation have focused on the introduction of new primary school subjects to promote 'creativity', the ramping up of efforts to promote higher 'standards' in schools, and a reinforced emphasis on 'core' subjects at the centre of standardised testing regimes.

The overall goals of the 2001 educational reform are a broader education and better academic achievement of all students and increasing access to secondary schooling through the construction of new secondary schools. Science Education, ICT, Citizenship Education, Health and Physical Education and the Arts have been introduced as school subjects at the primary level to cultivate creativity within the curriculum and eventual productivity within the populace. Despite these efforts, this study indicates that the government's emphases are on more accountability through tests and pressure on teachers and schools to achieve better scores, high standards through centralisation and standardisation of curriculum and instruction, while school leaders and teachers focus on rigorous instruction through focused teaching to the tests.

Unfortunately, this study offers no evidence to show that the desired outcomes of raising student achievement and increasing pass rates in standardised national examinations are being achieved. On the contrary, other research studies indicate that a significant majority of Mauritian pupils are under-performing as a population group. In the *Southern African Consortium for Measuring Educational Quality* (SACMEQ) II survey (Kulpoo & Soonarane, 2005), 56% of pupils sampled demonstrated a minimum level of mastery of reading and 60% in basic numeracy skills at the Standard VI level. The findings of the Monitoring Learning Achievement (MLA) project (Mauritius Examination Syndicate, 2003) indicate that 35%, 26% and 32% of the sampled Standard IV children have mastered higher order skills in literacy, life skills and numeracy, respectively. The effects of the current reform on

student achievement are disappointing, and lead to the conclusion that Mauritius is far from meeting its Dakar Education For All (EFA) target, which states that at least 80% of learners should attain or exceed the minimal mastery level (MML) in any of the learning areas (UNESCO, 2000).

Even if the reform measures led to significantly increased test scores in mathematics, languages and science and increased pass rates in standardised examinations, Mauritian children would not be better prepared for life in an increasingly globalised and technological world. Instead, schools are putting overemphasis on achieving high test scores in a limited number of subjects, which essentially amounts to the acceptance of a single criterion for judging the success of students, teachers and schools (Zhao, 2007). Better test scores do not necessarily mean improved creativity because students can do well on a test by cramming but this does not involve original thinking (Beghetto, 2010). Thus, the Mauritian educational system is hindering children's creativity and unrecognising talents that are truly needed in the global economy, and hence undermining the country's competitiveness.

This study further points out that central education authorities and schools tend to demand conformity and obedience, and that teachers and the Mauritian educational system as a whole lead to children's loss of self-confidence and externalisation of motivation, which in turn restrain children's urge to express themselves creatively. Yet, there is evidence that, worldwide, "most young children are naturally curious and highly imaginative" (Dacey & Lennon, 1998, p. 69), particularly with their use of digital media. Florida (2002) asserts that creativity in the classroom is a crucial initial step in the drive towards economic and social development in the knowledge-driven economy, and that, in general, tolerance of deviation from tradition and the norm enhances creativity.

The very measures taken to reform Mauritian schools seem to distract teachers from teaching what will truly improve global competitiveness. The escalating use of high-stakes testing can contribute to teachers feeling pressured to quickly cover content (see also Beghetto & Kaufman, 2009). Some principals interviewed admitted that schools are restraining how teaching and learning is conducted, with teachers narrowing what students learn and teaching to tests so as to make the grades look good on standardised tests such as the CPE examinations or the newly introduced



national assessment exit examinations at the Form 3 (secondary) level, in response to the obsession of central education authorities with test scores in a limited number of subjects in high-stakes national examinations.

The current focus on testing in Mauritian schools and the idea that there is only one right answer to a question may be restricting opportunities for individual differences and suppressing the development of creativity among children (Beghetto, 2010). Teaching all children in the same sequence, at the same pace, and using the same textbooks leaves little room for exploring individual capabilities and interests and accommodating different learning needs and styles. Curriculum standardisation and high-stakes testing work against creativity and educating to a child's fullest potential. Learning should not be restricted to a limited number of subjects, but instead Mauritian schools should recognise a broader range of talents. Moreover, interdisciplinary studies would better replicate real-life learning since creativity and innovation require various capabilities, explored and developed beyond discrete subjects (Berry, 1997; Sallis, 2002), in line with Deming's (1986, 2000) systemic view of an organisation.

It seems that Mauritian school leaders, teachers and parents place great importance on grades, test scores and academic performance, and, above all, admission to prestigious 'star' secondary schools. All other activities, including art, music, physical education and citizenship education, are considered unimportant because they are not examinable in the high-stakes national examinations. Instead, Mauritian policy makers and schools should define student success more broadly and strongly emphasise internal standards of success instead of external indicators. This may not necessarily lead to high test scores or good grades, but they could help to preserve individuality, encourage creativity and more broadly meet students' learning needs and interests. This may also create a 'feel good' factor among students by showing their talents in areas other than academic subjects, whereby they could demonstrate 'excellence' in infinite ways. Furthermore, this could enable children to pursue their interests and hence maintain some level of intrinsic motivation, which is indispensable for creativity (Dacey & Lennon, 1998; Robinson, 2009).

To further minimise the influence of schools in inhibiting creativity, the Mauritian educational system's high-stakes standardised testing at the primary level could be

replaced with more tools for teachers to diagnose and respond to early problems. The system could also reduce the frequency of high-stakes standardised testing at the secondary level, while including other subject specialisations such as art, music, sports, humanities, foreign languages and technology from which students can choose and to demonstrate their abilities, rather than require them all to do the same things. There should also be more opportunities for cross-disciplinary inquiry. Given that schools are supposed to prepare students for the digital world, ICT should not only be taught as a subject on its own but should also be used as a supporting and enabling tool in the teaching of all subjects at all levels (Darling-Hammond, 2007; Zhao, 2007).

Educational scholars agree changes can be made in the classroom to nurture creativity. Teachers should spend more time exploring unexpected ideas and encourage 'out-of-the-box' thinking (Beghetto, 2010). Teachers should recognise that unexpected answers may still lead to meaningful conversation and learning in the classroom. Teaching to prepare for tests and teaching to develop creativity should be overlapping goals that can be pursued concurrently, and are both necessary for a high quality education (Beghetto & Kaufman, 2009; Kim, 2005). Kim (2008) argues that many gifted and talented students are underachievers and this may be tied to their inherent and unrecognised creativity which tends to clash with traditional school environments.

Principals' responses indicate that Mauritian schools do not broaden what they value, but instead place overwhelming emphasis on the linguistic and logical-mathematical intelligences (see also Gardner, 1983). In their attempt to cultivate certain talents, schools suppress other less valued talents but that may be equally valuable in boosting the country's global competitiveness in 'human capital' terms. A child's performance in mathematics and languages is still the primary indicator of intelligence or ability and the determinant of who gets admission into 'star' schools. As a result, those inclined toward mathematics and languages are considered good students, while those who do not perform well in these areas are considered at risk, regardless of other strengths, talents and interests. The latter group of children receives poorer grades and lower scores on standardised tests, such as the national CPE examination, which then affects their self-esteem, their chances of attending a 'star' or indeed any secondary school, and ultimately their future. The Mauritian

education system values academic performance in mathematics and languages almost exclusively over any other type of talent, which results in students spending almost all their time on getting good grades in these areas or, sadly, withdrawing from school.

Yet, research has consistently demonstrated that grades and test scores in schools are necessary but not sufficient in predicting success in life or overall productivity (Goleman, 2006; Zhao, 2007). For example, Goleman (2006, p. 34) remarks that “[o]ne of psychology’s open secrets is the relative inability of grades, IQ, or SAT scores, despite their popular mystique, to predict unerringly who will succeed in life.” Globalisation and technological progress have made intelligences in other areas more important than ever. Mauritian schools and parents should not concentrate on a narrowly defined set of academic domains: mathematics, science and languages, but instead help children develop their ‘multiple intelligences’, broaden the definition of student success and celebrate diverse talents and achievements. The globalised economy demands a diversity of talents.

Although the 2001 educational reform recognises the need to prepare Mauritius to be globally competent, there was no evidence in this study that school leaders and other stakeholders were encouraging students to participate in activities that would promote international understanding and increase their knowledge of global issues, foreign languages, history, geography, literature, cultures and the arts of other countries. Nearly all of the school programs associated with this reform initiative focus narrowly on mathematics and languages, high standards, and accountability. The study reveals a lack of appreciation of the critical need to pay attention to foreign languages and to accept cultural diversity across countries and regions so as to meet the challenges of a changing world. As a result, Mauritian students are unlikely to be adequately equipped with the knowledge and skills to live and work in a globalised, networked world.

Students should be prepared to move confidently in the physical world, negotiate social differences, manage multiple identities, and interact comfortably with people across different cultures. For this to happen, there should be sufficient determination by central education authorities, policy changes and substantial financial investment to help schools with this difficult yet crucial change. Schools could use technology to

develop partnership and networking with schools in other countries, and organise international exchange programs for students and teachers (Cheng, 2003). There is an urgent need for curriculum renewal (broad-based) and pedagogical renewal, and therefore a heavy investment in educators' professional learning and development.

Globalisation has brought about many challenges in many countries and education cannot escape such challenges (Tullao, Jr., 2003). How globalisation will affect Mauritius and the future of the Mauritian education system depends on how schools face its challenges. School leaders, policy makers and central education authorities need to join forces to face the current crisis. Together, they need to consider how to educate Mauritian children to become valuable contributors to the integrated and interdependent global society and economy, and respected neighbors in the 'global village.' Presently, it seems that schools are failing to meet Mauritian global education needs in spite of the country's high-tech ambitions. The challenges posed by globalisation are enormous and, while they make take years to be satisfactorily addressed, now is the time to start.

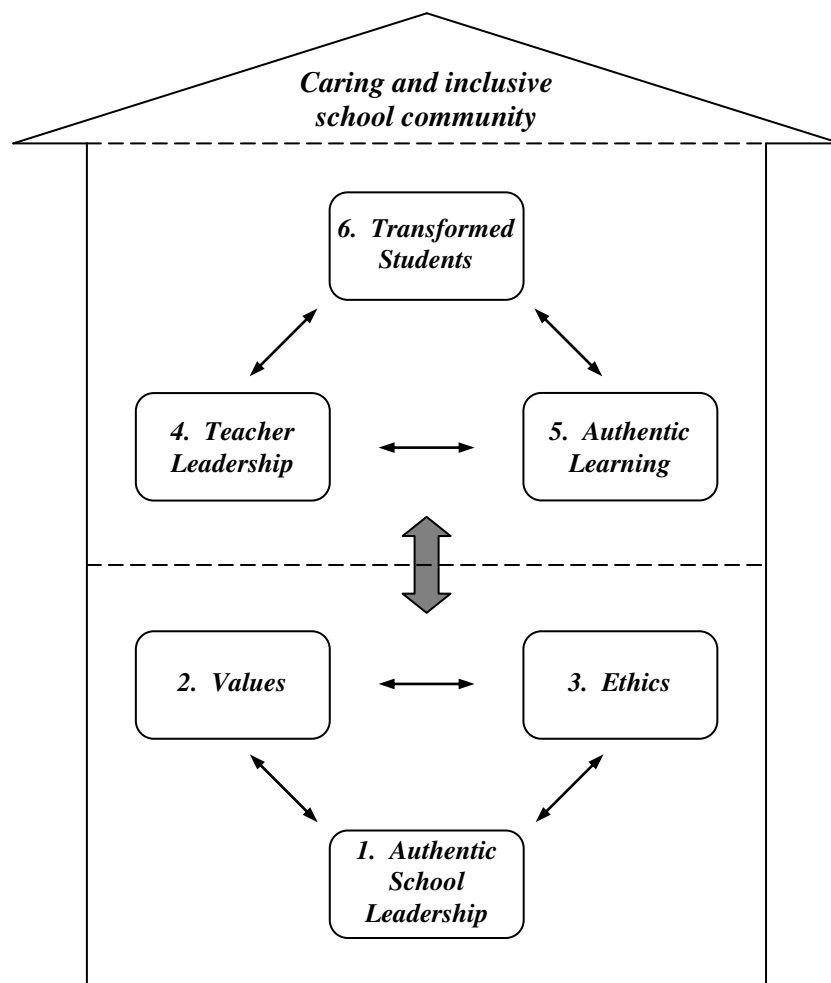
### **6.3.3 Implications for school leadership and school improvement**

#### *A conceptual framework for continual quality improvement in schools*

By and large, the findings reported in the qualitative phase of this study paint a rather gloomy picture of school leadership in Mauritius in relation to the application of effective practices embedded within the TQM paradigm despite government aims. Practical solutions to redressing the situation may be guided by considering these very same empirical findings, but now from the perspective of what constitutes exemplary, research-based school leadership practices. Hence, what emerged from the qualitative phase of this research is a conceptual framework for systemic school improvement, capturing principals' key ideas and backed by my literature review that focused on scholarly writing in respect of TQM, educational leadership and ethical school leadership. This framework comprises six main elements, identified in this research as follows:

1. Authentic School Leadership
2. Values
3. Ethics
4. Teacher Leadership
5. Authentic Learning
6. Transformed Students

Figure 6.1 depicts an overview of the resultant framework, integrating these six elements. The ‘Caring and inclusive school community’ (‘roof’ of figure) sets the context for school operations.



**Figure 6.1 A conceptual framework for continual quality improvement in schools**

From bottom to top, the framework can broadly be considered in two main strands. *Authentic School Leadership* (Element 1), *Values* (Element 2) and *Ethics* (Element 3)

represent the leadership strand. These elements are placed together to emphasise the importance of moral values and ethics which underpin school leadership. School leaders' commitment and actions are a manifestation of the values and ethics they personally espouse as important and which they put into practice in their schools.

*Teacher Leadership* (Element 4), *Authentic Learning* (Element 5) and *Transformed Students* (Element 6) represent the teaching/learning strand. Teachers, as instructional leaders, engage in authentic ways to create conditions for authentic learning of students so as to transform learning and eventually transform students.

The framework's first concern and emphasis is on *Authentic School Leadership* which have been found in this study to be of utmost importance in driving all change and quality improvement processes. Authentic leadership is fundamentally concerned with professionally effective, ethically sound and consciously reflective practices in leading and managing educational institutions (Begley, 2007). George (2004, p. 1) declares:

Authentic leaders genuinely desire to serve others through their leadership. They are more interested in empowering the people they lead to make a difference than they are in power, money, or prestige for themselves. They are as guided by qualities of the heart, by passion and compassion, as they are by qualities of the mind.

The focus of such leadership is on establishing school learning as a moral activity, whereby the school leader elevates his/her moral reasoning and actions above mere pragmatics or expediency, and this is leadership that is informed by values and ethics (Starratt, 2004). Such leadership also encourages a culture that values multiple perspectives and diversity and inevitably entails distributing/sharing leadership responsibilities and accountability at all levels in the school organisation so as to satisfy and exceed the expectations, aspirations and values of all stakeholders (Leithwood & Riehl, 2003; Leithwood *et al.*, 2006; Nemeč, 2006).

The framework also captures a vision of *Transformed Learners*, identified in this research as the overriding focus and ultimate aim of schools, that can be attained by means of a series of behaviours in the authentic school leadership and authentic teaching/learning elements which are themselves value based and ethical. Hence, the vertical arrow in the centre of the framework links the leadership strand to the teaching/learning strand, and also indicates the direct relationship between *Authentic*

*School Leadership* (Element 1) and *Transformed Learners* (Element 6), a key finding of the quantitative phase of the empirical study.

Since school change and improvement initiatives can be regarded as a continuous search for quality improvement in the system and in all educational processes in the quest to transform the learning of students, the six elements focused within the two strands in the framework are connected by two-headed arrows and illustrated as a cyclical process, for that accommodates the spirit of continuity. The two-headed arrows also indicate the importance of feedback in an effective schooling system.

Appropriately, reflecting the change from the traditional hierarchical organisational structure and top down decision-making to the TQM scenario in which principals lead and manage from the bottom up, the *Authentic School Leadership* element is placed at the bottom of the framework and the *Transformed Students* element is positioned uppermost.

This conceptual framework might therefore be described as encapsulating the moral purpose of schooling by elaborating and making explicit the values and ethics dimensions which might facilitate the work of school leaders and teachers in enhancing authentic (transformed) learning for students. As Gurr (2001, p. 2) states:

[W]e need to continually rethink our views of leadership. In educational settings, the exercise of leadership will need leaders throughout the organisation who: attend to core purposes of learning and teaching; work well with people; help construct a positive and caring learning environment and educational community; are reflective about themselves and the organisation; are forward thinkers with enough knowledge and understanding to develop common purpose and direction; exercise leadership within a moral framework; promote inclusive leadership; are responsive to changes in both the internal and external organisational environments.

The framework provides an original attempt to dedicate synchronised attention to the moral dimension of schooling and to the leadership and teaching/learning behaviours which they underpin, and to make meaningful connections between them, thereby attempting to fill a perceived gap in the literature.

The simplicity of the framework is intended as an overview and visual model of the school improvement process in the pursuit of the vision of transformed learners, but

does not prove sufficient for an understanding of the *practical* ways of realising and sustaining such a vision. Therefore Figure 6.1 is translated into and complemented by a set of guiding principles below, which describe each of the elements in more detail and provide additional insights into such practical processes.

### ***Guiding principles for continual quality improvement in schools***

Each of the elements focused in the framework is described as follows: the statement of one or more principles it embodies, the justification for the principle(s) and some exemplary behaviours that can be pursued to achieve the principle(s). These are both theoretically and empirically sound since they are informed by the literature review of the field and capture school leaders' responses and insights to TQM concepts in education uncovered in the empirical study. Taken in summation, they provide some clear commentary for action towards what TQM is actually about in education.

Given the archaic, conservative system of education prevailing in Mauritius, these guiding principles, it is hoped, may be a useful basis for future discussion and reflection within the Mauritian education context. They present signposts for challenges and opportunities that would be worthy of debate for improvement and creativity in twenty-first century Mauritius with its high-tech, world-class ambitions. Importantly, they could 'remove barriers to pride of workmanship' (*sic*) (Table 2.2, Deming's Point 12) and have profoundly liberating effects for Mauritian teachers and students. I shall henceforth refer to those schools which replicate these principles by what Bonstingl (2001) evocatively call *Schools of Quality*, which is also the title of his book.

#### ***Element 1: Authentic school leadership***

***Principle 1.1: Leadership is distributed throughout the school community, empowering those people best positioned to make decisions about quality improvement in teaching and learning within a culture of collegiality.***

In Schools of Quality, leadership promotes a culture that empowers those staff closest to the students, especially teachers, about how best to improve teaching and learning. Teacher empowerment entails a simplification of the school's organisational structure, shifting the focus of responsibility and decision-making



away from school leaders towards the teachers themselves. In Schools of Quality, more emphasis is placed on people and shared values and ethics than on roles and rules. It is important that the school is seen as one that listens and acts on the advice of ‘front-line’ staff instead of one that is formally organised and bureaucratised. Principals should be the agents charged with developing leadership capacity through distributed/shared practices in schools.

The more collegial the relationships among principals and staff, the more dramatic the progress towards school improvement will be (Brandt, 2003). When people participate collaboratively in teamwork approaches in school development, everyone feels more comfortable about bringing up problems and finding solutions and everyone experiences a real sense of ownership of the process (Purkey & Strahan, 1995). Decision-making extends to students (West-Burnham, 2004) since they are those most likely to be affected by the outcomes.

***Principle 1.2: Leadership is based on data and evidence, as well as professional discourses, intuition, judgement and lived experiences.***

A School of Quality builds staff capacity by collecting and analysing relevant data to inform decision-making. School leaders and teachers take a research stance and engage in evidence-based practice to reflect on their effectiveness and take action for improvement. A School of Quality implements routine procedures for collecting relevant data in ethical ways and for interpreting the collected data. A School of Quality is also committed to developing and enhancing staff skills in evidence-based practice.

However, leadership practices should not be solely data-driven. To be more ethical, feedback incorporating a qualitative view based on professional discourses, intuition, judgement and lived experiences that would enable informed decisions should be equally valorised. Schools of Quality emphasise efficacy as well as ethical integrity. It is not good enough to simply argue, as in the evidence-based scenario, that because an approach ‘works’ it must be adopted. Schools of Quality pursue action because it is ‘right’ to do so.

***Principle 1.3: Leadership supports on-going professional learning of teachers, embedded in teacher practice and focused on student outcomes.***

Teacher's professional development should be ongoing in order to keep up to date with new educational thinking and enhance their teaching practice, while focusing on student outcomes. Teaching is a dynamic profession and, as new knowledge about teaching and learning emerges, new pedagogical skills are required by teachers. On the other hand, teachers will not change their teaching practice unless they learn new ways to teach and learn (Wilms, 2003). The learning should also be determined collectively by teachers and meet their needs. Professional learning should also serve to create and promote a working environment in which collaboration and involvement of teachers from different subject disciplines and departments prevail (Berry, 1997).

In Schools of Quality, teachers should also be educated about the quality philosophy, and acquire skills (handling of quality tools and techniques) and attitudes (active listening, cooperation) to be able to apply standards and a philosophy of continuous improvement and to make quality education a reality in schools. Moreover, professional learning should be embedded into the everyday practice of teachers, within the context of daily routines and tasks in which they are already engaged (Fullan, 2007; Wayman, Jimerson & Cho, 2011), such as lesson planning, grading, assessment and evaluation. This enables new learning to be tried out *in situ* and in a time-efficient manner (Wayman, Jimerson & Cho, 2011).

***Principle 1.4: Leadership is made sustainable by distributing leadership, taking responsibility for leading learning, and planning for leadership succession.***

Efforts at ongoing change or continuous improvement in a school are unlikely to be enduring unless leadership is practiced in ways that are sustainable. Sustainable leadership cannot be left to individuals, however talented or dedicated they are. Leadership should be distributed and developed across the whole school organisation with participative and teamwork approaches, providing a basis for sustainability of change and organisational self-renewal (Hargreaves & Fink, 2003, 2004, 2006; Leithwood *et al.*, 2006).

Principals in Schools of Quality also ensure that they can sustain their work by taking responsibility in *leading learning* by making learning a priority in all school activities. He/she sustains student's learning first and then everyone else's learning in support of it (Stoll, Fink & Earl, 2003), thereby making lasting and inclusive improvements for students in their care.

Through traditional, hierarchical leadership practices, schools grow or decay with the coming in and going out of the principal (Cunliffe, 2009; Mukhopadhyay, 2005). Sustainable leadership does not disappear when leaders leave, but rather lasts beyond them so that their benefits are spread from one leader to the next (Hargreaves & Fink, 2003). School leaders have a prime responsibility for planning leadership succession so that leadership succession events does not pose a threat to sustainable improvement.

***Principle 1.5: Leadership builds a school culture as a framework to lead authentic behaviours and actions towards continuous improvement, stakeholder satisfaction, and collaborative approaches.***

In Schools of Quality, the school culture focuses on establishing an environment where people develop an explicit and owned sense of group purpose, grounded on values and ethics. Creating a school culture requires leaders and staff to develop a shared vision that is devised by, and clearly communicated to, all stakeholders. Collaborative discourse is a powerful tool that can be used to facilitate the process of developing school culture. Principals in Schools of Quality initiate new collaborative processes that relate to norms, values and beliefs, vision, shared expectations, and that influences ways of working together in the school. They foster an atmosphere of trust that helps teachers, students, and parents work as a community to support authentic teaching and learning, albeit within their various capacities (see, for example, Hopkins, Reynolds & Gray, 2005; MacBeath *et al.*, 2007; Miller Marsh & Turner-Vorbeck, 2010). They create a climate that encourages shared authority and responsibility. Importantly, Schools of Quality celebrate key events and achievements as a community to promote the core values that are accepted and lived out.

***Principle 1.6: Leadership focuses on external networking, with an emphasis on cooperation rather than competition.***

Schools of Quality work in close partnership with parents and encourage their involvement to support their children's learning. They also build lateral capacity through interaction with other schools, universities, future employers and the community, and seek to enhance their satisfaction and loyalty. In this way, an effective chain of stakeholders is built and they can participate actively in decisions regarding improvements in the design and delivery of educational programmes. Nonetheless, relationships among the school's external stakeholders will be superficial and cooperation will be unproductive unless these stakeholders perceive and trust that such activities will improve the school's quality, make attractive achievements possible, and not produce deceitful behaviour. Schools of Quality therefore build a climate of trust, mutual support and development among all stakeholders.

#### ***Element 2: Values***

***Principle 2.1: Schools promote and model relational values such as 'trust', 'respect' and 'fairness', enabling adults to operate relationally and providing opportunities for students and staff to create a healthy relational partnership in the classroom.***

Schools of Quality place great value on relationships and recognise their responsibilities to uphold the dignity and rights of others. School leaders who are able to show a human side are held in high esteem by staff and help to build trust and encourage staff to take risks and become involved. The promotion of relational values, including mutual trust, respect for the dignity and worth of others, and fairness, is a significant factor not only in the well-being of staff and students alike, but also in their willingness to support a shared school vision. The leader's influence is largely anchored on his/her moral values or virtues, over and above the mere use of formal power.

***Principle 2.2: Schools promote and model the values of ‘love’ and ‘care’, either as religious faith in action or as secular concepts within pastoral care, fostering the full human development of students.***

In Schools of Quality, students know that they are respected, appreciated and cared for, and so teaching and learning are well received. A focus on the values of love and care means the promotion among students of social behaviours, confidence building, communication skills, sharing and caring, love and appreciation for nature, love for learning, community spirit and mindedness. Schools of Quality engage in activities to enhance the general awareness of, and respect for, all religions.

In Schools of Quality, pastoral care is the endeavour of all people within the school community to care for each other and foster the building of meaningful personal relationships. Pastoral Care is an expression of the ethos of the school, especially endorsing the values of love and care, to respect the dignity of each person within a faith or non-faith community. Through pastoral care, each member of the school community is invited to become more fully human and more confident learners.

***Principle 2.3: Schools promote and model the value of ‘social justice’, building an inclusive and caring community as they embrace the diversity of people and cultures and place themselves at the service of society.***

Schools of Quality build an inclusive and caring school community, based on the value of social justice. They are inviting and inclusive as they endeavour to reach out particularly to the socially disadvantaged and the needy. They ensure that their policies and teaching practices reflect the principles of social justice – equity, access, participation, equal opportunities – thus modelling a more just and democratic society (Duignan, 2005). This involves seeing the school community as encompassing parents and others collaborating with the school. It also involves a perspective that stretches beyond the school gate to encapsulate an active care and collective responsibility for the Mauritian education system as a whole and all the students within it (Lumby & Morrison, 2006).

***Principle 2.4: Schools promote and model the value of ‘excellence’, ensuring the highest quality of teaching and learning and aiming at the very best outcomes for all students.***

In Schools of Quality, school leaders strive to achieve the very best outcomes for students by ensuring the highest quality of ongoing professional learning for teachers and authentic learning for students in an ethos of high expectations and strong support. At the same time, teachers recognise the need to respond to students’ ability differences and to provide educational approaches tailored to their individual needs. Discipline and hard work on the part of both students and teachers are seen as prerequisite conditions to achieve expectations at all times. Although the academic development of the child is valued as a priority, ‘creativity’ is nurtured within the curriculum, and the mental, physical and spiritual developments are concurrently catered for.

### ***Element 3: Ethics***

***Principle 3.1: School leaders and teachers are challenged by the ethic of ‘authenticity’ to bring their deepest principles, beliefs, values and convictions to their work, and to act in truth and integrity in all their interactions as humans with the good of others in view.***

In Schools of Quality, school leaders have an obligation to promote a reciprocal relationship with teachers in which they express their own authentic selves while simultaneously respecting and affirming how teachers construct authenticity in their lives and professional work (Bredeson, 2005). The ethic of authenticity places an obligation on school leaders to appreciate and affirm teachers’ uniqueness and needs while focused on building individual and collective capacity through professional development (Bredeson, 2005). School leaders in a School of Quality require truth and integrity in all its staff, promote authentic learning, and develop school work systems that challenge teachers and students to engage with society in ways that promote authenticity.

***Principle 3.2: School leaders and teachers are challenged by the ethic of ‘responsibility’ to act in ways that acknowledge their personal accountability for their actions, and to create and promote conditions for authentic learning experiences for students.***

In Schools of Quality, principals feel a primary responsibility, as leaders and educators, for their own actions and for the authenticity of the learning of students in their schools. Principals are therefore seen to be responsible or accountable to themselves and to the people making the decisions related to that learning, as well as to one-another. To this end, they take responsibility to create environments conducive for transforming learning and the persons making the decisions related to that learning.

***Principle 3.3: School leaders and teachers are empowered by the ethic of ‘presence’ to act with genuine authenticity and responsibility, linking them strongly to the school’s stakeholders in the pursuit of quality.***

In Schools of Quality, schools leaders manifest their ethic of presence in different ways: an ‘affirming’ presence, a ‘critical’ presence, and an ‘enabling’ presence (Starratt, 2004). Principals indicate an affirming presence to teachers in the form of clear messages to them that they are valued, encouraged, and would not be judged or sanctioned as they make themselves vulnerable to new learning and take risks to experience novel teaching practices. Principals’ critical presence means that they are leading at the forefront by example in the sense of enabling and supporting shared decision-making, responsibility and accountability, while showing their human side in interpersonal relationships with staff. Principals’ enabling presence is more proactive in the sense that they are directly involved with teachers in ways that are truly open and engaging to build specific capacities (knowledge, skills), aimed at authentic teaching and learning of students.

#### ***Element 4: Teacher leadership***

***Principle 4: Teachers transform the learning of students by putting into practice their values and ethics as instructional and curriculum leaders, and by creating conditions for authentic learning of students.***

Teachers as ‘leaders’ play a central role in influencing student performance and outcomes. Improvements in student outcomes are more likely when teachers are empowered in decisions related to teaching, learning and assessment (Silins & Mulford, 2002). In Schools of Quality, teachers are instructional and curriculum leaders committed to the values and ethics underpinning the development of transformed students. They contribute actively in the creation of authentic learning experiences for students, whereby teaching and learning processes are continually constructed, deconstructed and reconstructed (Starratt, 2004) to satisfy the particular needs and expectations of the students, and “with a view to elevating and enhancing their life chances and choices” (Duignan, 2007, p. 4).

#### ***Element 5: Authentic learning***

***Principle 5: Authentic learning takes place in schools, engaging students in deep, meaningful and purposeful learning experiences, whereby teaching and learning processes are constantly transformed so as to realise the vision of transformed students.***

In Schools of Quality, authentic learning typically focuses on real-world, complex problems and their solutions, using role-playing exercises, problem-solving activities, case studies, and participation in virtual communities of practice. Going beyond academic learning and outcomes and the need to meet the requirements and expectations of parents and other stakeholders, authentic learning intentionally engages students in enriching learning processes and experiences within current frameworks for teaching and learning to enable them to better assimilate, retain and transfer knowledge. Learning becomes as much social as cognitive, and as much concrete as abstract.

Authentic learning asks students to work actively with abstract concepts, facts and formulae inside a realistic and social context mimicking the ordinary practices of the



disciplinary culture. It requires students to identify for themselves the tasks and subtasks needed to complete the major task, typically over a sustained period of time. It provides the opportunity for students to examine the task from a variety of theoretical and practical perspectives, to think in interdisciplinary terms, to make choices and to reflect on their learning. Authentic learning activities make collaboration integral to the task. There is no place for superficial performance based merely on formulaic understanding of the subject/object of study (Starratt, 2004).

### *Element 6: Transformed students*

***Principle 6: Students are transformed into fuller, richer and deeper human beings as a result of their authentic learning experiences supporting their full human development.***

In Schools of Quality, transformed students are motivated by solving real-world problems, expressing a preference for learning by ‘doing’ rather than ‘listening.’ They are intellectually curious, excited by learning, motivated to persevere despite initial disorientation or frustration, and have the patience to follow longer arguments. They are able to make judgements to distinguish reliable from unreliable information. They have the flexibility to work across disciplinary and cultural boundaries to generate innovative solutions.

Although foundational skills (reading, writing, mathematics, language, etc.) remain essential, students immersed in authentic learning activities cultivate the kinds of ‘portable skills’ that modern society and the world of work nowadays demand. Transformed learners go beyond being technically competent to being able to get things done, demonstrate ethics and integrity, and work well individually and with others in teams. They are ‘creative’ thinkers and problem solvers, independent, proficient, optimistic and resilient. They take responsibility for their own learning. They are committed to their ongoing mental, physical, intellectual and spiritual development and to lifelong learning.

#### **6.4 Implications for further research**

To the best of my knowledge, this is the first ever doctoral-level study assessing the quality status in primary and secondary schools in Mauritius at the national level

(Ah-Teck and Starr, in press). As there are no studies with which to compare the findings of the present study, they are certainly worth exploring in further studies, both quantitatively and qualitatively.

Future research can improve upon the findings of the present study by using larger samples of principals and raters other than principals. Not only the formal school leader counts, not only the moral dimension of his/her behaviour is important, but also that of the other stakeholders of the organisation (González & Guillén, 2002). This type of research can potentially triangulate the findings of the present study, provide more comprehensive findings about successful school leadership practices and offer a richer and more accurate description of leadership reality.

One particular way to enhance the results of the quantitative phase of the study is to use a complementary statistical technique, confirmatory structural equation modeling (SEM), used by Badri *et al.* (2006), Olson (2009) and Winn and Cameron (1998) in their respective studies, to examine the relationships among the Baldrige dimensions. Whilst correlation and regression analyses examine the relationships among each of the dimensions, SEM tests the predicted relationships among all dimensions in the overall framework together.

In their respective studies, Badri *et al.* (2006) and Winn and Cameron (1998) proved empirically that *Information and Analysis* was a driver dimension of within-system performance with a significant causal influence on each of the other three system dimensions: *Strategic Planning*, *Faculty and Staff focus*, and *Educational and Support Process Management*. These relationships identified *Information and Analysis* as the critical link in the Baldrige System. It remains for another study to test if such within-system causal relationships can be empirically validated in the Mauritian case. In effect, this would explore whether the Mauritian study supported the Baldrige theory that an effective organisation needs to be built upon a framework of measurement, information, data, and analysis (NIST, 2004, 2010).

The higher education sector in Mauritius faces a number of different challenges and deals with many different quality issues and priorities. Another conceivable direction for future research might assess the current quality status, from the perspective of a wide range of senior leaders, in Mauritian higher education institutions to explore the

relationships among quality dimensions using the Baldrige framework, or alternative (competing) frameworks such as the more recent *European Quality Award*, *Canadian Quality Award* or *Australian Quality Award* models (Vokurka, Stading & Brazeal, 2000). Accordingly, findings could be shared with leaders and policy-makers in higher education regarding evidence-based improvement strategies. The idea is to enable 'quality' to permeate the whole schooling system in Mauritius, from primary to tertiary levels, as the government wishes.

It should also be acknowledged and emphasised that most of the qualitative findings were strictly theoretical in nature. To confirm the veracity of principals' views and suppositions regarding their actual practices could be the focus of another research agenda, including individual and focus group interviews with other stakeholders.

Finally, the conceptual framework for continual quality improvement in schools, emerging from the qualitative phase of the present study, is necessarily tentative and its accompanying guiding principles are also tentative and certainly non-exhaustive. The framework is the result of the thinking that arose out of conducting this research study and it may provide some helpful signposts for future researchers or resultant discussions concerning improving Mauritian schools.

## **6.5 Closing comments**

An objective of the research focused on assessing, from principals' perspectives, the current quality status in Mauritian primary and secondary schools and investigating whether current school leadership practices have elements in common with the tenets of TQM. A second objective was to uncover principals' views about the usefulness or otherwise of TQM-related ideas in implementing and sustaining school improvement initiatives and bringing about the transformation of Mauritian schools. The final objective was to discuss implications for school leadership and school improvement based on principals' responses.

Given the findings and outcomes of this research, I believe that the objectives have been achieved. However, quality management is not a quick fix or a simplistic recipe for success. Achieving quality is a never-ending journey and not a destination (Bonstingl, 2001; Mukhopadhyay, 2005). The Mauritian educational system will

have a way to travel if it pursues the TQM paradigm. Whilst critics might point out that TQM is an ideal which is hard to achieve, it precisely serves the purpose of an ideal: that is, to provide a benchmark and goal against which to measure progress.

By and large, principals' responses in this study indicate that TQM discourses are accepted and even applauded, but their fulfillment in practice will require considerable adjustments to current implicit leadership theory and practices. However, education authorities reaffirm the government's vision of Mauritius as a world player in the vanguard of global progress and innovation and to make the Mauritian economy more internationally competitive, and hence a systematic initiative for quality improvement is required even though its implementation may be difficult (Ah-Teck & Starr, in press). The journey must go on if the government's aim of 'world-class quality education' is to be achieved by using TQM as an organising management tool.

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# Appendix A

## Faculty of Arts and Education

Human Ethics Advisory Group (HEAG)

### Melbourne campus at Burwood

221 Burwood Highway, Burwood 3125, Victoria, Australia.

Telephone (03) 9244 6412; Facsimile (03) 9244 6306; Email: josephine.wee@deakin.edu.au



GEELONG

MELBOURNE

WARRNAMBOOL

Chair: Dr Damian Blake  
Secretary: Ms Josephine Wee

21 October 2009

Mr Chan Ming (Jean Claude) Ah-Teck,  
25 De Courcy Street  
Port Louise  
Mauritius

**Project Ref No: HEAG 09-69**

**Project Title: Total quality management: A model for school improvement in Mauritius?.**

Dear Jean Claude Ah-Teck,

I am pleased to advise that your research ethics application described above has now been considered by the Arts and Education Human Ethics Advisory Group (HEAG) and has been approved for you to commence research.

Please remember that the project number should now be included on the Plain Language Statements and must always be quoted in any communication to avoid delays.

Best wishes,

Signature Redacted by Library

**Dr Damian Blake**  
Chair, HEAG

cc. Professor Karen Starr and Professor Jill Blackmore

## Appendix B



REPUBLIC OF MAURITIUS  
MINISTRY OF EDUCATION, CULTURE & HUMAN RESOURCES

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Our Ref: M.E./193/16/2/6

Date: 30 November 2009

Mr Jean Claude Ah-Teck  
25 De Courcy Street  
Port-Louis

Dear Sir,

*Subject:* Research in Educational Leadership in Mauritius

Please refer to your letter dated 26 October 2009.

2. Approval is hereby conveyed to you for conducting the questionnaire survey in our Primary and Secondary schools. However, this decision does not make the participation of Heads of Schools mandatory and it will be left to their own discretion to participate or not.
3. On completion of your survey, you will have to apprise the Ministry of your findings, this being a conditionality to the approval conveyed to you.
4. Relying on your collaboration.

Yours faithfully,

Signature Redacted by Library

**L. Despois**  
for Supervising Officer

## Appendix C



# Private Secondary Schools Authority

Sir Francis Herchenroder Street – Beau Bassin

REPUBLIC OF MAURITIUS

Tel: 454 7031 (7 lines) – 466 8284 / 85

Fax: 464-5347 – Email: [director@pssa.intnet.mu](mailto:director@pssa.intnet.mu)

Our Ref. : T/A/11/87

Your Ref. :

6 November 2009

Date: .....

Mr Chan Ming AH TECK  
25 De Coucy Street  
PORT LOUIS

Dear Sir

### RESEARCH IN EDUCATIONAL LEADERSHIP IN MAURITIUS

Further to your letter dated 26 October 2009, this is to inform you that the PSSA has no objection to your conducting a research study on the above subject in the Private Secondary Schools.

However, you are requested to seek the prior approval of the Manager for that purpose.

Yours faithfully

Signature Redacted by Library

M. L. CHOOMUN  
Director

DR/bd



## Appendix D

### BUREAU DE L'ÉDUCATION CATHOLIQUE

BUREAU OF CATHOLIC EDUCATION

*Incorporating*

Roman Catholic Education Authority  
Roman Catholic Secondary Education Board  
Service Diocésain d'Éducation Technique  
Centre de Formation Pour Educateurs

---

To Rectors of Catholic Colleges  
To Head Masters of RCA primary schools

3<sup>rd</sup> November 2009

Dear Colleagues,

**Survey in Catholic schools for a PhD Thesis on *'Total Quality Management: A model for school improvement in Mauritius'***

Mr. Jean-Claude Ah-Teck, Educator at Collège du Saint –Esprit Quatre-Bornes, is conducting a research towards a PhD degree in Educational Leadership at Deakin University, Australia.

As a crucial part of his research, he will be conducting a questionnaire survey to investigate the leadership roles of school principals: Rectors and Head Masters, in Mauritius. The quality management practices and strategies you currently employ as Head of your school will be examined within the Total Quality Management (TQM) principles.

Permission is hereby granted to Mr. Jean-Claude Ah-Teck to conduct his survey. Kindly give your time to complete the questionnaire elaborated by him. Some Rectors and Head-Masters will also be solicited for an interview. This PhD Thesis will undeniably be of help to our educational sector.

Thanking you for your collaboration.

Signature Redacted by Library



Gilberte Chung Kim Chung (Mrs.)  
Director



# Appendix E

## SCHOOL QUALITY ASSESSMENT QUESTIONNAIRE

(FOR SCHOOL PRINCIPALS: HEAD MASTERS AND RECTORS)

<i>Code</i>

### BACKGROUND INFORMATION

Please answer the following questions by marking a tick (✓) in the appropriate block.

1 What is your type of school?

Primary school	
Secondary school	

2 How long have you been a school principal: Head Master (primary) or Rector (secondary)?

Less than 2 years	
2-5 years	
6-9 years	
10 years or more	

3 What is your highest qualification?

<b>Head Master (primary sector)</b>		<b>Rector (secondary sector)</b>	
Teacher Training Certificate (TTC)		Bachelor's degree	
Advanced Certificate in Education (ACE)		B.Ed. degree or P.G.C.E.	
Teacher's Diploma (TDip)		Postgraduate diploma	
Certificate in Education Management (CEM)		Master's degree	
Advanced Certificate in Education Management (ACEM)		Doctoral degree	

4 What is your age range?

20-29 years	
30-39 years	
40-49 years	
50 years or more	

5 What is your gender?

Male	
Female	

## INSTRUCTIONS FOR COMPLETING SECTIONS A TO G

In each of sections A to G of the questionnaire, there is a list of statements/items on quality management issues reflecting the current situation at your school, with which you may or may not agree.

Please read each statement carefully and then use the five-point rating scale shown below to indicate the degree to which you agree or disagree with it, by marking a tick (✓) in the appropriate block. All statements must be rated.

Not true at all	Slightly true	Moderately true	Largely true	Absolutely true
0	1	2	3	4

For example, the choice of the number '2' indicates that you feel that the statement reflect the current situation at your school to a moderate extent, while selecting the number '4' indicates that you agree with the statement to a full extent.

If you experience any difficulties in understanding certain key terms, kindly refer to the *glossary of key terms* on pages 8 and 9 of this questionnaire for assistance.

### Section A LEADERSHIP (Organisational leadership, public responsibility, and citizenship)

Item no.	Item	Rating				
		0	1	2	3	4
A1	The members of the school's management committee are committed to quality improvement.					
A2	The members of the management committee are visibly involved in quality promotion.					
A3	The school has a quality policy which is clear and understood by all stakeholders.					
A4	The school has a framework for quality improvement in place.					
A5	The management committee sets directions for a learning-orientated climate in the school.					
A6	The members of the management committee serve as role models through their ethical behaviour.					
A7	The school's performance is reviewed regularly for the early detection of problems.					
A8	The findings of performance reviews are translated into action plans.					
A9	The school has a strong commitment to the needs of the community (outside school).					
A10	The school maintains excellent links with the community.					
A11	Community views are regularly solicited.					
A12	The school has strong links with business and industry through partnerships.					
A13	The school actively involves key stakeholders as part of good citizenship practices.					
A14	Senior school leaders are recognised outside the school for promoting quality.					
A15	The principal gives top priority to quality improvement.					
A16	The principal leads innovation and change.					

A17	The principal has a vision and shares it.					
A18	The principal champions the message of quality.					
A19	The school has an equal opportunities policy being implemented.					
A20	Authority and resource management are delegated down.					
A21	A positive attitude to innovation and change is part of the school's culture.					
A22	Learning maximisation and prudent risk-taking are emphasised.					
A23	There is a tolerance of mistakes.					
A24	Good communications are seen as a major priority.					
A25	Communications are bottom-up, not just top-down.					

**Section B      STRATEGIC PLANNING**  
**(Strategic planning, development and deployment)**

Item no.	Item	Rating				
		0	1	2	3	4
B1	The school has broad aims and objectives.					
B2	Staff at all levels is aware of the school's direction.					
B3	The school has a written strategic plan.					
B4	The school has identified key stakeholders to be involved in the strategic planning process.					
B5	The strategic plan identifies how staff can contribute to success.					
B6	The school considers influences that might affect its future direction.					
B7	High academic standards are set for all students in the school.					
B8	Information is used to inform the planning process.					
B9	The mission of each sub-system (academic department, committee, team, etc.) reflects the school's overall vision.					
B10	The school plans for continuous improvement in all its operations.					
B11	Strategic objectives are converted into action plans.					
B12	Individual needs of students are taken into consideration in the design of educational programmes.					
B13	The way people are managed enables the school to accomplish its objectives.					
B14	The school has measures in place for tracking progress with its action plans.					
B15	The school has the ability to project its future performance.					
B16	The school compares its performance with that of other effective organisations.					
B17	People at all levels of the school are involved in working within quality improvement teams.					
B18	The school's objectives are communicated to people at every level.					
B19	Appropriate targets are set based on best practice benchmarking data.					

**Section C STUDENT AND STAKEHOLDER FOCUS**  
**(Knowledge of learner, stakeholder, and market needs, expectations, relationships and satisfaction)**

Item no.	Item	Rating				
		0	1	2	3	4
C1	The school is familiar with the needs and expectations of all its stakeholders.					
C2	Stakeholders collaborate to collectively improve the quality of the school.					
C3	Procedures for handling inquiries and complaints are well established.					
C4	The school conducts regular surveys to obtain feedback from students and stakeholders.					
C5	Students' views are regularly solicited through surveys to anticipate their future needs.					
C6	Future stakeholder expectations are tied to the school's curriculum development.					
C7	The school is positively seeking out to build relationships with stakeholders.					
C8	The school holds high expectations of students with regard to learning outcomes.					
C9	Complaints by stakeholders are dealt with promptly.					
C10	Careers guidance is readily available to students.					
C11	Information is gathered systematically to monitor improvement in stakeholder satisfaction.					
C12	Special training in stakeholder service is provided to all administrative staff of the school.					
C13	The school encourages and supports parent involvement in the child's learning.					
C14	Students are engaged as full participants in the school's quality improvement processes.					
C15	Student welfare is a priority of the school.					
C16	The school ensures that learning connects with the real life experience of the student.					
C17	The school reports regularly to parents about their child's progress in academic and non-academic areas.					
C18	There is a good rapport between students and staff.					
C19	Students are kept informed about developments that affect them.					
C20	Students have a sense of pride in their work.					
C21	Staff are committed and knowledgeable.					
C22	Staff have a student-centred approach.					
C23	Staff takes responsibility for their own quality.					
C24	Staff have a sense of pride and enjoyment in their work.					
C25	Staff readily respond to individual needs of students.					
C26	The school has innovative projects responding to students' needs.					
C27	Accessible student counselling is available to all students who need it.					
C28	There is a good climate of purposefulness among students.					
C29	The school has a commitment to students' of all abilities.					
C30	The school knows what value it has added to each student who leaves it.					
C31	The school establishes explicit high standards for student learning.					
C32	The school celebrates student achievements in ceremonies.					

**Section D INFORMATION AND ANALYSIS**  
**(Measurement and analysis of organisational performance and information management)**

Item no.	Item	Rating				
		0	1	2	3	4
D1	Information is used in monitoring the school's daily operations.					
D2	Decision-making throughout the school is based on the analysis of collected information.					
D3	Information is analysed to support the strategic direction of the school.					
D4	Information is communicated in a systematic manner throughout the school.					
D5	Information analysis is used to improve the school's quality performance.					
D6	Adequate procedures are in place to collect data about the school's performance.					
D7	Appropriate benchmarking data is obtained.					
D8	Appropriate use is made of benchmarking information.					
D9	A range of quality tools and techniques is used to improve quality.					
D10	Good student and community feedback based on systematic data collection is obtained.					
D11	Happy students and satisfied stakeholders are evidenced through surveys and questionnaires.					
D12	Data is cycled back into improvement initiatives.					

**Section E FACULTY AND STAFF FOCUS**  
**(Work systems, system and staff education, training, development, well-being, and satisfaction)**

Item no.	Item	Rating				
		0	1	2	3	4
E1	The school utilises teacher appraisal processes to identify and support the specific learning and developmental needs of individual teachers.					
E2	Staff development and training starts with a review of individual needs.					
E3	The school celebrates staff achievements in staff meetings and ceremonies.					
E4	There is a commitment to teamwork and team approaches to solve problems.					
E5	The school plans for career progression of all staff.					
E6	Staff is recruited on the basis of particular skills needed.					
E7	Staff is trained with the aim to serve the school's overall objectives.					
E8	Staff members are involved in the design of their training.					
E9	The effectiveness of staff training is evaluated regularly.					
E10	The school provides a safe and healthy workplace to its staff.					
E11	The well being, satisfaction, and motivation of all staff is evaluated regularly.					
E12	The school is committed to developing its staff.					
E13	Staff have strong cohesion.					
E14	There is a resource base that allows staff to improve quality.					
E15	Staff is regularly consulted on policy.					

E16	Staff training is adequately resourced and funded.					
E17	Staff is trained in quality improvement techniques.					
E18	The school creates ongoing opportunities for professional discussion and reflection among staff.					
E19	The school cultivates a collaborative and supportive teacher culture through the sharing of good practice.					
E20	The school promotes collegial, respectful and trusting working relationships among staff.					

**Section F EDUCATIONAL AND SUPPORT PROCESS MANAGEMENT  
(Education design and instructional approaches, learner services, and support processes)**

Item no.	Item	Rating				
		0	1	2	3	4
F1	The curriculum focuses on active learning, e.g. problem solving, critical thinking.					
F2	The curriculum is appropriate to needs of students to equip them for life in the knowledge society.					
F3	The curriculum addresses student development in non-cognitive (affective, social competencies and physical) student learning outcomes.					
F4	New technology is incorporated to improve communication and information sharing.					
F5	Procedures are designed to reduce student dropout rates.					
F6	Teaching and learning strategies are regularly reviewed and measured by a range of specified criteria.					
F7	A variety of teaching and learning strategies are employed to meet the individual needs of students.					
F8	The key services to students are those considered most important to students' academic success.					
F9	Feedback from students and other stakeholder groups is used to improve services to students.					
F10	The school builds lateral capacity through networking and interaction with other schools and educational providers.					
F11	The school reviews and evaluates its own educational programmes to determine their effectiveness.					
F12	Students are encouraged to take responsibility for their own learning.					
F13	Students' progress is regularly tracked and monitored.					
F14	Students' attendance is regularly monitored and tracked.					
F15	The school uses individual and small group tutoring for students requiring additional support.					
F16	The school has a well-resourced library, or an outside resource centre is available, with appropriate resources to meet curriculum needs.					
F17	Open access to learning resources is available to all students.					
F18	Open-access computer facilities are available to all students.					
F19	The school integrates the use of ICT in teaching and learning activities.					
F20	The school flexibly adjusts grouping (within and among classes) to enhance learning at each stage of schooling, by integrating whole-class, small-group and one-on-one- learning.					

## Section G SCHOOL PERFORMANCE RESULTS

Item no.	Item	Rating				
		0	1	2	3	4
G1	Learning results reflect the mission of the school.					
G2	The school has excellent examination results and student successes.					
G3	The school's examination results have increased over time.					
G4	The school's financial measures are performed successfully.					
G5	The school's overall performance reflects its organisational effectiveness.					
G6	The school has high student retention rates.					
G7	The school has high progression rates for students obtaining appropriate employment or places in other educational institutions.					

**Your participation in this research is greatly appreciated. Thank you very much for your time and cooperation.**

### GLOSSARY OF KEY TERMS

#### Active learning

*Active learning* refers to interactive teaching methods that engage students in such higher-order thinking tasks as analysis, synthesis, and evaluation. Students engaged in active learning might use additional resources, such as libraries, the Internet, interviews, and focus groups, to obtain information.

#### Action plans

The term *action plan* refers to specific actions that respond to short- and longer-term strategic objectives. Action plans include details of resources and time frames.

#### Analysis

*Analysis* refers to examination of facts and data to provide a basis for effective decisions.

#### Leadership

*Leadership* is a social influence process in which the leader tries to obtain the voluntary participation of team members in an effort to reach institutional objectives.

#### Management committee

The term *management committee* refers to the team internal to the school (**not** to central administration such as RCEA, BEC, PSSA or Ministry of Education) with the main responsibility for managing the school as a whole. The management committee may include the Head Master/Rector, Deputy Head Master/Deputy Rector, Head of Departments, Deans and Section Leaders.

#### Performance

*Performance* refers to output results obtained from processes and services that can be evaluated and compared. Performance can be related to learners and stakeholders, finances and budget, and operations.

## **Process**

A *process* refers to linked activities with the purpose of producing a programme or service for students and/or stakeholders within or outside the school.

## **Quality improvement teams**

*Quality improvement teams* are small groups of teachers/students who have been empowered to manage themselves as well as their daily work without interference by senior school leaders. A team is allowed to determine its own procedures and objectives, but these must be congruent with the goals of the school as a whole.

## **School principal**

In the Mauritian context, the *school principal* refers to the Head Master in the primary sector, or the Rector in the secondary sector.

## **Senior school leaders**

For the primary sector, *senior school leaders* include the Head Master, Deputy Head Master (Administrative/Teaching) and Mentors.

For the secondary sector, *senior school leaders* include the Rector, Deputy Rector, Head of Departments, Deans and Section Leaders.

## **Stakeholders**

*Stakeholders* are all groups that are or might be affected by the school's actions and success. Examples include parents, governing bodies, staff, social service organisations, alumni, businesses, employers, other schools, and local/professional communities.

## **Strategic planning**

The term *strategic planning* refers to a school's articulated and formalised aims or planning processes used to define and address major change/improvement and/or competitive issues. The purpose of strategic planning is to establish the long-term direction of the school in order to position the school to be successful in the future.



# Appendix F

## INTERVIEW GUIDE

### 1 GENERAL

- Quality in education

#### *Sample questions*

- ◆ What do you understand by quality education?
- ◆ What do you think are the characteristics of a quality school?

### 2 ORGANISATIONAL PROFILE

- Competitive environment
- Excellence
- Challenges
- Comparison with other organisations/schools

#### *Sample questions*

- ◆ What is your school's context/culture?
- ◆ How does the organisational structure of your school look like?
- ◆ What does your school do well?
- ◆ What does your school do poorly?
- ◆ What are your school's challenges?
- ◆ How do the school's performance levels compare with those of comparable schools?

### 3 LEADERSHIP

- Role of leadership – commitment/role model
- Visible involvement
- Quality values and vision
- Review role/early detection of faults
- Decision-making

#### *Sample questions*

- ◆ What sort of leadership style do you practise or privilege?
- ◆ Why is leadership important in your school?
- ◆ Do you support the notion of distributed leadership? How?
- ◆ How do you demonstrate commitment to quality education and quality improvement?
- ◆ How do you empower stakeholders, especially teachers, not in formal leadership positions?
- ◆ How do you motivate teachers to collective action for whole-school success?
- ◆ What are the beliefs and values of your school, and does everybody share them?
- ◆ What are the values which underpin your school and shape your behaviours in your professional life?
- ◆ How do you demonstrate your adherence to ethical principles within your leadership practices?

- ◆ How do you sustain your leadership practices and what are the impact on teaching and learning?

#### **4 FOCUS ON THE STAKEHOLDER**

- Stakeholder identification: teachers, students, parents, other educational institutions, businesses and the community
- Relationships with stakeholders
- Healthy work environment
- Motivation and recognition of stakeholders
- Stakeholders' well-being and satisfaction

##### *Sample questions*

- ◆ How do you determine the needs and expectations of your stakeholders?
- ◆ How do you create conditions for teachers' motivation, well-being and satisfaction?
- ◆ How does your staff demonstrate commitment to quality education?
- ◆ How do you manage complaints?
- ◆ How do you meet (or exceed) stakeholder expectations?
- ◆ How do you provide opportunities for children to learn the skills of democracy, citizenship skills and lifeskills?
- ◆ How do you set high academic standards for students?
- ◆ How does your school's curriculum contribute to the realisation of students' potential?
- ◆ How are parents supported to participate in the school's activities and in their children's education?
- ◆ How do you develop cooperative working relationships (partnerships/links) with other educational institutions, businesses and the community?

#### **5 COMMITMENT TO CHANGE AND CONTINUOUS IMPROVEMENT**

- Continuous improvement efforts
- Continuous evaluation
- Self-assessment

##### *Sample questions*

- ◆ What efforts are made to improve the quality of teaching and learning constantly?
- ◆ What improvement efforts are made constantly for administrative tasks?
- ◆ How have improvements been achieved in student performance, in the school's education climate and school services, and in school operations?
- ◆ How do you set measures to control, review and evaluate academic progress on a continuous basis?
- ◆ How do you manage resistance to school-based change initiatives/externally imposed change programs among stakeholders?

## **6 DECISION-MAKING BASED ON DATA**

- Stakeholder satisfaction – surveys and feedback
- Monitoring/measuring
- Data collection
- Communicating of information

### *Sample questions*

- ◆ How are data and information managed and used effectively to support the school's overall performance excellence?
- ◆ How do you measure stakeholder satisfaction?
- ◆ What kind of data is collected?
- ◆ What tools are used to collect the data?
- ◆ What role players are involved in the collection of the data?
- ◆ How do you compare the levels and trends in key measures of stakeholder satisfaction with those in comparable schools?
- ◆ What are the difficulties experienced in using quality tools and techniques to collect data formally?
- ◆ Can the qualitative view of staff members based on their professional intuition, judgement, perceptions and lived experiences be useful?

## **7 PROFESSIONAL LEARNING**

- Ongoing staff development
- Professional learning opportunities

### *Sample questions*

- ◆ How do you train staff to contribute to the achievement of the school's overall performance objectives?
- ◆ How do you build and maintain a climate conducive to personal and organisational learning?
- ◆ How do you motivate and enable staff to develop their full potential?
- ◆ How do you provide opportunities to continuously upgrade teachers' knowledge and skills?
- ◆ Are staff members involved collaboratively in developing professional learning programs?
- ◆ What kind of induction programs, if any, are there for new teachers?

## **8 TEAMWORK**

- Teamwork – quality improvement
- Empowerment/participation

### *Sample questions*

- ◆ How do you involve stakeholders in your school's quality process?
- ◆ How do you empower your staff?
- ◆ Does teamwork form an integral part of your school's organisational structure?
- ◆ What role do teams play in quality improvement?
- ◆ Who are responsible to make decisions in the school at all levels?