

Framework for Delivery of Quality Education: Examination of quality concepts to inform a framework for improving education quality in St Lucia a member of the Organization of Eastern Caribbean states (OECS)



Dr. Chryselda Caesar

Organizational Improvement and Performance Management Consultant

E- lecturer University of the West Indies

chryseldacaesar@yahoo.co.uk

Abstract. This paper examines quality concepts to inform a framework for the delivery of quality education in one of the organization of eastern Caribbean states, St Lucia. It explores various quality definitions, different quality models, and diverse perspectives on learning organizations in relation to their relevance and usefulness to advise the delivery of education. A conceptual framework that specifically addressed quality control rooted in strong accountability; quality assurance centered on processes; school leadership and school culture is proposed for significant changes and a new dimension for strengthening the delivery of quality education in the region. Quality improvement plans or models are great for debate, they are often seen as necessary, good ideas that infuse passion in workers, but they are hard to implement and even more difficult to sustain due to the organic and complex work environment. However his paper stimulates discussion for a gradual shift focused on a learner centered outcome, underpinned by strong school culture as a new investment for quality education, as we continue to chart the educational direction for St Lucia and the Organization of Eastern Caribbean States (OECS).

Keywords: student achievement, quality education, school leadership, OECS, school culture, Caribbean, St Lucia.

1 INTRODUCTION

The debate and concern for quality education is not new or unique to the Eastern Caribbean states (OECS) or St Lucia. The Future of Education in the Caribbean: CARICOM Regional Education Policy (1993) highlighted necessary education reform and delivery of quality education as major challenges. 'Education for All in the Caribbean by 2000-2015', addressed key issues relevant to the pursuit of quality education.

Recently the Organization of Eastern Caribbean States (OECS) Education Sector Strategy 2012-2021, clearly states and I quote "there is widespread agreement within the region at government and grass roots level that while some progress has been made in the quantity and quality of education provision and in the achievements of learners, the pace, scale and coverage of these improvements has not been sufficient over the past ten years". (p.2) The main goal is thus "the overarching goal of education in the OECS as described in the Education Sector Strategy 2012-2021, is to contribute to the socio economic advancement of

the OECS through a quality education system that enable learners of all ages to reach their true potential” (p.8)

At the international level, in 1990, in Jomtein Thailand, at the World Conference on Education For All, for the first time quality was emphasized as one of the major objectives of an international programme to improve education, whereas earlier the emphasis was on expansion (Bergman 1996). Quality education as a priority was reaffirmed at the World Education Forum in Dakar 2000, and as recent as at the Round Table of Ministers of Education on Quality Education for All at UNESCO Headquarters in October 2003. Gannicott & Throsby (1992, p.224,) also highlighted that “in the early days of lending for education, the World Bank emphasized quantitative targets.... but now explicitly incorporates quality issues in the appraisals of education projects”.

The importance, desire and concern for quality impel investigating the concept if appropriate strategies are to be employed for its realization.

2 DEFINITION OF QUALITY

Defining quality is difficult for many researchers and education practitioners due to its illusive and intangible nature (Sallis 2002). West-Burnham (1992) and Reynolds (1994) suggest that quality is composed of separate components some of which are measurable and are based on standards or degree of excellence.

It possesses both absolute and relative characteristics. As an absolute, quality is part of the intrinsic nature of that which it seeks to describe, it is rare, expensive and conveys status (Sallis 2002). As a relative concept, characteristics are ascribed in the definition of quality. The relative concept has two main emphases; measuring up which accentuates system procedures and requirements, and transformational quality based on continuous improvement and developing processes through which quality might be achieved (Sallis 2002). Implicit in the relative component is a practical route to achieve quality through the implementation of measurements and processes.

2.1 Various perspectives of quality

Several quality gurus based on in-depth research and observation provided instruction on quality attainment. For instance, Philip Crosby (1979) offered fourteen steps and itemizes four main absolutes for quality improvement: quality is conformance to customer requirements not intrinsic goodness, prevention not detection, zero defects and the price of non-conformance. The fourteen steps to quality improvement appear in appendix 1.

Deming(1982) another quality guru, provided fourteen points for quality management. But his main emphases were precision, performance and customer satisfaction which appear in appendix 2.

Joseph Juran (2010) on the other hand defined quality as fitness for purpose. He outlined three main steps to improve quality: structural annual improvement plans, training for the whole organization and quality directed leadership. The four main requisites for quality programmes include; identification of goals and policy for quality, implementing plans to meet goals, providing resources to evaluate progress and ensuring appropriate motivation (Juran 1989). Juran’s ten steps to achieve quality appear in appendix 3.

While Crosby, Deming and Juran developed quality concepts to manage and improve quality in motor industries in Japan, and that their theories and detailed guidelines seem to have different emphasis, they share common concerns on quality and customer satisfaction (Doherty 1994). Their differences surface in their diverse proposed strategies. Deming believed quality could be addressed through statistical methods and analysis and customer

satisfaction, Juran proposed leadership and teams working in a collaborative environment whereas Crosby stressed prevention by attending to processes.

Though they provided the foundation and language for current quality thinking and perhaps quality attainment, the danger lies in attempting to apply concepts that are industrial base to education because of their fundamental and inherent differences. One transacts goods whereas the other provides services. The hard cold language of industries (customers, clients, producers, tools, techniques) evokes certain perceptions and clinical behavior which has the potential to hinder delivery of quality education, a service that is greatly enhanced in an interactive caring environment. The assembly line concept with skills specificity favours a pyramid management structure that is more suited to industries, unlike schools that now recognize the distributive style of management (Leithwood et al. 1998, Harris 2003) for promoting improvement, change, empowerment and teacher creativity.

Further these concepts were developed for Japanese companies, thus cultural specificity or barriers may hinder application to different environments (Dimmock 2000).

Sashkin and Kiser (1992) also seem to endorse this belief. They explained that even Deming when asked why Americans were reluctant to apply his teaching, his response was “*I think there is something fundamentally different between Japanese and Americans business managers. The best description I can think of is that the people have roots and the roots are the company*” (Sashkin and Kiser 1992, p.26).

However Sallis (2002) advocates that some of the quality concepts can be borrowed and applied in a fashion that makes sense in education. Education researchers, Murgatroyd and Morgan (1992) and West-Burnham (1992) chronicled three main concepts associated with quality and quality management; Quality Control, Quality Assurance and Total Quality Management. The key features of each of these concepts appear in appendix 4.

2.3 Quality Control

Quality control appears to point in the direction of inspecting, monitoring, detecting and eliminating defective products that are not up to standard (Sallis 2002) by external agencies. St Lucia administers annual standardize tests at grades 2, 4 and 6 at the primary level, and at form 3 at the secondary level to monitor education quality. These tests satisfy the accountability mandate but do not sufficiently inform the developmental and remedial aspect although the underlying belief is that the information will generate impetus for improvement (Riley 1994). It is conducted to provide mainly summative information to policymakers, practitioners and stakeholders. Perhaps these externally driven and central controlled actions may deter ownership by schools, thus affecting the desire to take immediate and willing responsibility for internal quality. Student failure despite curriculum coverage at the end of the academic year, maybe an indication of both time and resource wastage. The widely circulated reports on students’ attainment and school rankings expose schools to public scrutiny and hold schools accountability for students’ performance.

OFSTED (1994a p.5)) contends that ‘the purpose of inspection is to identify strengths and weaknesses in schools so that they may improve the quality of education offered and raise the standards achieved by students’. The question is, to what extent is this relevant to St Lucia, since the top ten ranked schools based on examination results have retained this ranking for over five years (Ministry of Education examination reports 1995-2003). However well intended, externally imposed examinations seem to create dilemmas within schools. Perhaps they promote discrimination against students as some schools may be tempted to filter and exclude weak students who might bring down their mean performance and school ranking. Regular examinations encourage teaching to pass examinations and de-emphasize the total

development of the child. This issue is well worth noting by examiners and policy makers. It appears that quality control however well intended address only one aspect of quality education. Schools should be encouraged to take responsibility for their internal quality, through quality assurance which addresses continuous improvement process.

2.4 Quality Assurance

Quality control informs quality assurance as it provides information on areas that require remediation and improvement. Schools are then required to address these weaknesses by developing procedures and process to improve teaching and learning to raise standards and improve quality. Quality assurance is about establishing a system that follows a systematic planned process to ensure that the product conforms to specify quality (Parsons 1994).

Sallis (2002) similarly confirms that quality is designed into the process so that the product meet specific requirement. Quality standards are maintained by the workforce who following set procedures.

Some key features from West-Burnham's (1992. p.18) list of quality assurance might be practical to manage quality in schools in St Lucia. They include emphasis on prevention, delegated involvement, cause and effect analysis, statistical process control, external accreditation and audit of quality systems. Schools may encounter difficulty in the introduction of auditing quality systems and external accreditation features that were developed primarily for industries due to resources, time, energy and expertise requirements. The other concepts incorporate inspection and assurance for enhancing the learning process to improve education quality in St Lucia.

Prevention	Appraisal of quality of teaching and learning
Delegated involvement	Empowering staff to take ownership for teaching and learning processes and to make quality improvements for enhancing students' performance
Cause and effect analysis	Internal review, whole school and regular teacher appraisal. Action research to address short term problems Curriculum review to guide desired outcomes expected of students
Statistical process control	Quality control- based on standardized tests to provide statistical information and ensure adherence to standards.

The quality assurance emphasizes processes and procedures, but actual implementation that lead to improvement manifest itself only when teachers are motivated to engage the processes for change and transformation through total quality management (West-Burnham 1997).

2.5 Total quality Management

Sallis (1994) argues that while quality assurance can provide a certain measure of reliable service, creating a true quality organization requires a particular type of culture derived from TQM. He contends 'total quality is a passion and a way of life for those organizations that live the message' and the challenge is 'how to generate the passion and the pride required to generate quality in education' (Sallis 2002, p.65). It incorporates and extends beyond quality assurance to create a quality culture to satisfy customer needs (Sallis 2002).

West-Burnham (1997) outlines four elements applicable to schools pursuing total quality:

- Principles that incorporate vision, values and leadership

These are essential for school improvement. Vision and values bond the school community, with leadership to sustain the commitment and provide facilitates, structures and process for school improvement.

➤ People working in teams with emphasis on learning and development.

Teachers who work collaboratively and develop processes to enhance teaching learning are likely to have greater impact on the quality of education. Teachers who improve on their knowledge base are also likely to be more productive.

➤ Prevention - school aims to minimize failure.

Schools developing quality assurance to include: regular assessment of learning and teaching processes (curriculum implementation, lesson planning, teaching methods, student assessment, professional development and training) management and administrative processes (time-tabling, registration, resources, school review assessment, and appraisal)

➤ Processes.

Schools that develop management and pedagogical processes to facilitate both the environment and learning activities are better equipped to meet students' needs for quality learning.

These four elements are important for advancing quality education, but vision, values and good leadership are fundamental for direction, purpose and to sustain commitment to achieve quality education. The four components are synergistically linked and must move forward with the same force if a system professes to be true to the TQM concept. Some or all of these elements may exist in varying degrees but the efficient system that can be created through

TQM may be difficult to actualize in St Lucia. The limiting constraints include:

1. Resources. Schools' budgets are centrally controlled by Ministry of Education.
2. It might be disadvantageous to expose students who spend five years at one institution to TQM because as Sallis (2002) explains it is a long process and the benefits are also long term. Though the concept is industrial based only 20% of companies have experience benefits from implementing TQM (Chesterton 1994). Holt (2000, p.3) states that Deming disliked the term 'total quality management' because it has a hint of linearity whereas achieving quality involves complex organic actions. It stresses continuous improvement and desire for progress, and requires innovation and creativity.
3. The customer concept further complicates implementation of TQM in education since all stakeholders are indeed customers in education with different interests. Which begs the question, whose interest should be represented? Can a five year old decide on the quality of education she/he desires? Further who is authorized to make the decision?
4. Reynolds (1994, p. 96) claims 'TQM is extremely difficult to implement'. It has a low success rate in industries for which it was developed. Insufficient evidence of empirical and successful implementation of TQM in schools from perusal of literature by the researchers, seem to indicate that it might not be the path for schools in St Lucia or the OECS.
5. Furthermore the customer as the end user in industry, has the option to exercise choice in selection of goods, to purchase, walk out or return the goods (Sallis 2002) unlike the stakeholders in education, with various expectations, desires and concepts of quality education. They expect a service albeit expensive yet not refundable. The overriding positive side of TQM requires engaging the human resource through commitment to processes to create quality in all areas in the organization through a quality culture. Learning organization concepts reaffirm the position that schools can recreate themselves by becoming learning organizations (Senge et al. 2000). This concept introduces a unique and different ways of operating in an organization, requiring a distinctive culture to provide quality education.

3 LEARNING ORGANIZATIONS AND QUALITY ACHIEVEMENT

Implicit in TQM is that schools become learning organizations so that those who work there continuously learn and improve on their work and add value to existing achievement rather than replicating the norm (Murgatroyd et al. 1992, p.141).

Senge et al (2000) argue that schools that recreate themselves to become learning organizations do not do so by following rules and regulations, but pursue a learning orientation by everyone expressing their aspirations, build awareness and develop their capabilities. They suggest three core concepts for learning organizations: every organization is a product of how its members think, learning is connection, and learning is driven by vision. They recommend personal mastery, shared vision, mental models, team learning and system thinking as five disciplines to guide learning organizations.

Robinson (2002) argues that the concept is idealistic. It can provide a framework for school improvement and reform but schools will need to find ways to operationalize the concept, which indeed is difficult. Most of the empirical research on learning organizations is done in context different to education, with access to resources, consultancy, and other support systems which are not available to schools that depend on centrally controlled public funds (Cousins 2002). Stoll et al. (2002) also argue that at present there is limited empirical evidence to prove that schools are able to learn, adapt and develop creatively into learning organizations.

Stoll et al. (2001) and MacGilchrist et al. (1995) also confirm that collective learning and shared values, among teachers, are challenging more so in secondary and evident in many primary schools (cited in Stoll, Bolam and Collarbone 2002). Learning tends to be highly individualistic and collective learning (among teachers) an imperative for schools in the pursuit of transforming into learning organizations to achieve quality education might be problematic.

4 REENGINEERING SCHOOL CULTURE- A LEARNER FOCUSED SCHOOL CULTURE

Murgatroyd et al. (1992, p.142) contend that in order to sustain quality within an organization it must be independent of individuals and should become a way of doing things, a culture that permeates the organization and continues in the absence of champions. Schein (1985) argues favourable for a learner focused culture and the ability of leaders to manage and 'reengineer culture' that focuses on people/ students and not systems. Recognition that school culture is the dominant factor in collective learning (Leithwood et al 1998) is noteworthy, but schools that are intent on achieving quality should ensure that this culture is supportive of students learning. It may require confronting and changing the cultural norms that exist in schools if St Lucia were to embark on this change process. Also change in teacher behaviour would require creating and shifting culture which in itself is indeed a complex process. Lakomski (2001) warns it involves interweaving of several parts which may be far apart causing it to be slow difficult and overridden with resistance from inability to overcome existing patterns or to shift teacher behaviour patterns.

Schools might be hindered in accepting and creating this shift due to numerous environmental constraints created by expectations and perceptions of policymakers and practitioners. Stoll et al (2002) argue that organizational learning involves everyone in the organization but policymakers and educators still perceived learning to mean only learning outcomes of students. Schools suffer from lack of maneuvering power or autonomy in St Lucia to make quick changes. Education is strongly controlled by policymakers who mandate a prescriptive curriculum and standardized examinations to gauge quality and to hold schools accountability for students' performance. The St Lucia Education Act of 1999 puts greater emphasis on management and bureaucratic process for raising standards than on continuous learning and

professional development of teachers. Ongoing professional learning is left largely to individuals and schools indicating that the correlation between teacher learning and student improvement is not acknowledge by policymakers.

The Learning organization concept, furnishes strategies for organizational improvement and change, and an idealistic framework for schools to develop a culture of continuous learning for everyone in the organization. The different concepts of quality discussed above reveal an evolution from quality control that emphasized inspection, to quality assurance that incorporated inspection but highlighted control of processes, and a synthesis of both TQM which also included leadership, and commitment and development of a school culture for delivery of quality education. Components from the preceding discussions will inform the development a quality model for schools in St Lucia. However an investigation on different perspectives of quality education might provide greater clarification to the debate, to inform and enhance the conceptual model

5 UNRAVELLING DIFFERENT CONCEPTS OF QUALITY EDUCATION

Pring (2000) provides this philosophical definition of education :

It refers to those activities that bring about learning...for Dewey worthwhile learning was that which was fruitful in enabling people to adapt successfully to new situations and to identify and deal with problems as they arise...education refers to that learning which in some way transforms how people see and value things, how they understand and make sense of experiences, how they can identify and solve their problems. Educational experiences do not leave people as they were. People become in an important sense different persons (p. 14)

This definition describes characteristics of an educated person. The assumption is that pursuit of quality education (Holt 2000) will bring this about. Doherty (1994) indicates quality education is imbued with contrary meanings based on the expectations and definitions from the different stakeholders in education, but a common handle is required as suggested by Hoy et al. (2000), who claim it involves evaluation of processes that are useful to develop talents of students, and accountability standards expected by those who pay for the process of education. Both quality control and assurance are implied and useful to provide information on students' performance to policy makers, the main financial contributor to education and other stakeholders, and to guide formative processes for education improvement. OECD (1989) argues definition of quality education should include an understanding of how context, curriculum, school organization, resources and facilities, evaluation of pupils, teachers and systems can contribute to quality' (cited in Riley 1994). Hoy et al. (2000) indicate that in the definition of quality, schools should consider what is expected of the product that is to possess quality, or what performance level or achievement standard is acceptable when judging the student. The above discussion suggests that quality education can be achieved thus: through inspection (quality control) that includes assessment of students' performance, teacher appraisal, financial and accounting of school budget, resource allocation, application of education indicators for whole school review by both external and external agencies.

Hence the hard quantifiable component of education, and processes that impact on teaching and learning to ensure continual growth and progress by developing and implementing improvement strategies are vital for quality achievement. The responsibility for schools to assure and ensure internal quality will therefore require team effort and leadership with a focused vision to direct this process. Such process might include: articulating clear vision policy and goals related to quality education for the school, school development plans, evaluation of teaching methods and curriculum content, parents involvement, evaluation of school and management structures, problem solving reporting and accounting all aspects of that impede or facilitate learning and students' performance.

6 SCHOOL LEADERSHIP

School performance and students' achievement are associated with good school leadership. Successful school, schools committed to delivering quality education to students are driven by compelling vision that embraces the hopes, dreams, values and beliefs of all stakeholders, in a community motivated by leadership (Sergiovanni 1995). Beare et al. (1990) outline the five characteristic of effective schools of which vision and leadership feature prominently as shown below:

- Effective schools have a clearly articulated vision.
- Effective schools use systematic evaluation and assessment.
- There is an expectation in effective schools that all students will learn.
- An effective school has an orderly and safe climate which encourages learning and teaching.
- Effective schools have **strong educative leaders**.

No other person is in a better position than the school leadership to drive or obstruct the progress in a school. Principals of schools who seek to achieve quality schools engage set strengths (Sergiovanni, 1995) to facilitate successful teaching and learning. These strengths will be discussed later in the proposed model for improving education in St Lucia.

7 PROPOSED QUALITY MODEL FOR SCHOOL IMPROVEMENT

7.1 Quality Control and Assurance

The generic concepts of quality control and quality assurance, that addressed accountability through assessment and evaluation of students' performance (quantitative data) and education processes (qualitative data) are useful in generating a model for improving the quality of education in St Lucia. At present standardize tests serve as the primary key evaluation method. Tests measure level of acquisition of skills and knowledge against a standard (the curriculum), and are useful for satisfying expectations of different stakeholders, particularly parents, politicians and employers, who often requirement direct, quick and easy to understand information, on schools and students' performance. Evaluation of education processes are neglected but greater emphasis is required as argued by Gray and Wilcox (1994) who posit that school quality goes beyond examination results and should include evaluation of process which deals with ways teaching and learning are delivered.

7.2 Quantitative and qualitative data

Both quantitative and qualitative data are essential for measuring students' outcomes and to provide evidence of school performance. Data collection can tedious and time consuming and could have greater relevance if correlated to quality issues.

Performance indicators provide information on school achievement (Chapman 1996). They go beyond examinations results to include other variables for monitoring school effectiveness such as drop-out rates, absenteeism, exclusion, level of social discord and attendance (Gray and Wilcox 1994). They provide a more comprehensive dialogue for monitoring education. Besides, if school performance is judged only on tests results then it is possible that schools will teach for the test as suggested by (Walsh, 1994) and neglect the social and emotional development of the child. The Monitoring Model with fifty Core Education Indicators grouped under 8 sub-headings for monitoring performance in the OECS and St Lucia (appears in appendix 5) is yet to be implemented. Although it addresses both quantifiable and qualitative processes there is greater emphasis on the former. It may be beneficial to compare this model with the European Report on Quality of School Education' (2000)) which identified sixteen quality education indicators to guide the delivery and assessment of quality

education in European schools (shown in appendix 6). Educational indicators are not fixed and will vary depending on the socio-cultural, economic climate, values goals and aspirations of a country, local regional and international environment. Indicators should be viewed in the context of fostering best practices, and to learn from comparison. However both models seem to have neglected the relevance of internal evaluation by school.

7.3 Internal/evaluation

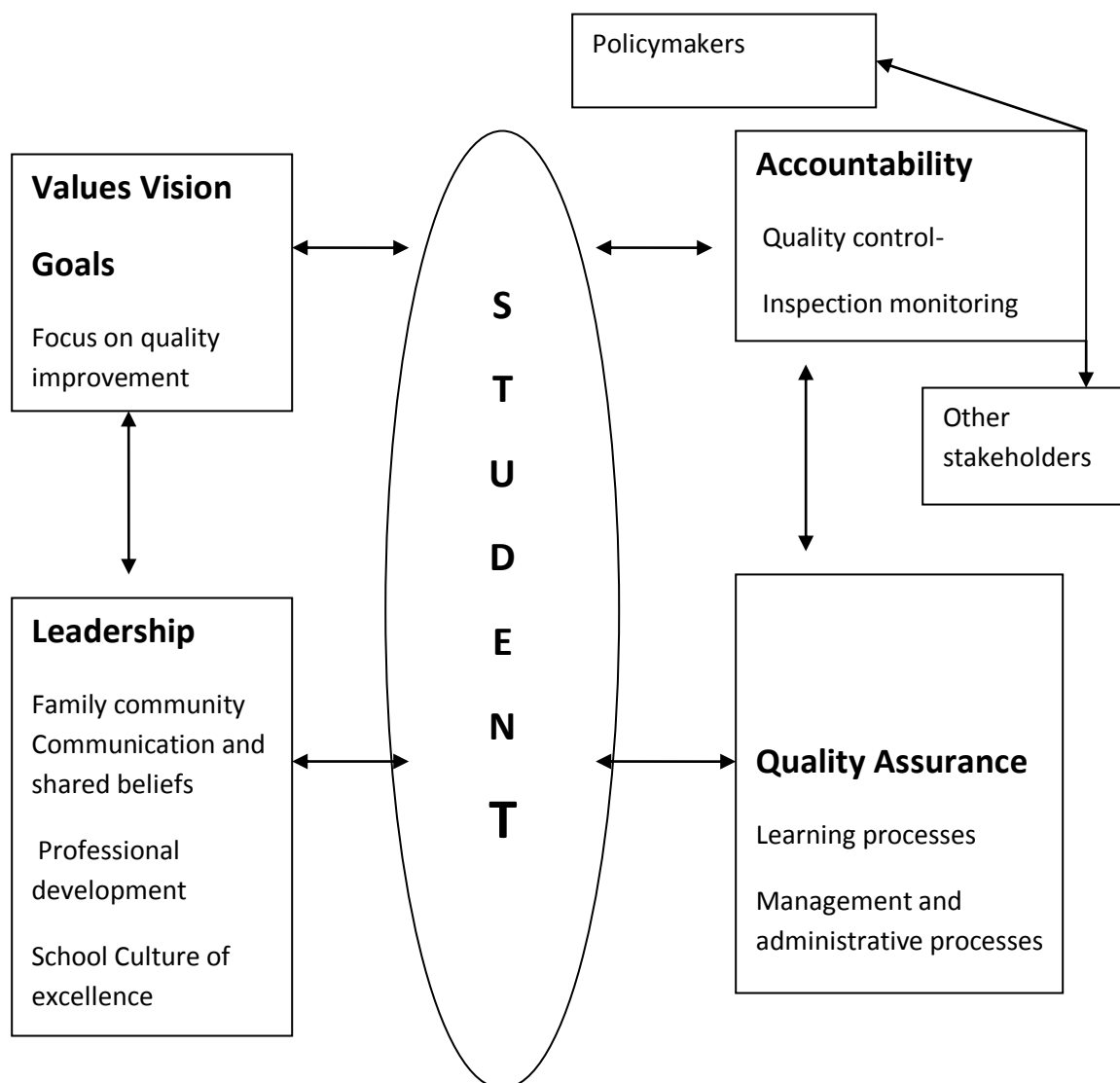
External accountability satisfies the perceptions and value judgments of local education authorities, policy-makers governors and taxpayers (Riley, 1994) and parents. It has been argued that externally imposed measure of quality control schools do not necessarily encourage schools to take responsibility for internal quality. Bell and Rhodes (1996) also suggest there is greater potential for school improvement when schools develop their own procedures for monitoring and reviewing what happens within their walls, and incorporate processes in the management plan to maintain and improve standards.

Limitations of a parochial nature or inability to accurately identify own weaknesses (Riley 1994) justify complementary use of external assessment in St Lucia schools. Emphasis on continuous improvement will lead to organizational improvement and to transformational quality if the focus is beyond quantifiable indicators (Doherty 1994) the hard measurable aspect of education. It requires concentration on the soft components of education: quality management, people, processes that impact on students' learning, values and vision that is learner centered (Hutchens 1990).

7.4 Leadership Values vision and culture

These components (Leadership Values vision and culture) are closely mirrored in Peter and Austin (1986) recommendation of characteristics of good school leadership for enhancing quality education. They are: focusing on the students, autonomy experimentation and support for failure, Management by walking about, vision and goals and create a sense of family (cited in Sallis 2002). Leadership, goals, vision and values are highlighted as central to quality school. Such leadership provides opportunities, creates community and sustains commitment to ensure a secure environment to operationalize schools goals (Sergiovanni 1995). Such environment can be shaped by the school culture to facilitate delivery of educational goals. It is perceived as a powerful medium for influencing behaviour in an organization. Strong cultures build strong cohesive organizations but the culture must suit the purpose and goals for quality education. It connects students, teachers and parents through shared values, beliefs, myths, traditions, symbols, and artifacts Handy (1993) to create a unique school community. Once a strong culture is established it sets the rhythm and path to achieve the desired outcomes. It can be changed nurtured and maintained by school leadership to achieve school improvement in St Lucia. Sergiovanni (1995) argues that it goes beyond the visible tangible components though they too are important. It includes demonstrating commitment to the goals through the actions, behaviours and how business is conducted daily in the school. It is one of the key strengths available to school leadership to promote successful schools. Synchronization of some of the preceding concepts is reflected in a proposed model to guide quality education in St Lucia as shown below.

PROPOSED QUALITY EDUCATION MODEL FOR ST LUCIA



This model attempts to harmonize four main components; values, vision and goals, Leadership, quality control and quality assurance in a framework for managing a quality student-entered school. It recognizes that significance of both accountability (quality control) and improvement processes (quality assurance) in the quest for quality education. Application of education indicators to monitor and evaluate school effectiveness is meaningful might be less impactful if effort is deliberately focused on quality issues. Accountability satisfies government and other stakeholders' expectations and also call to attention areas requiring remediation through quality assurance. Processes to improve teaching and learning may require developing new procedures and should feature prominently in school development plans. It may require examining the existing procedures to ensure school goals, curriculum

content, resources, expected outcomes, pedagogy management and administrative processes and teacher professional development are integrated in improvement plans. It acknowledges the importance of leadership directed by vision and values to advance the learning of both staff and students in an environment committed to creating a culture that promotes quality improvement.

8. Conclusion

Attempts to achieve quality by continuously implementing education policies, education indicators, and annual assessment and standardize examinations while useful have not delivered the expected results or raise standards and quality significantly.

The proposed model outlined above offers an alternative route to raise students' achievement. It recognizes the significance of quality control, but identifies the importance of follow up actions after results and measurements are obtained for school improvement. The quality assurance component aims to enhance teaching and learning as an integral feature of school improvement. Improving schools is dependent on how people work, communicate, and translate information and how school leadership operates to facilitate quality in teaching and learning in the schools. Wong (2001), Harris (2003), Sallis (2002) confirm that leadership is a key element particularly if it focuses on creating a culture for continuous quality improvement through staff commitment, shared values, beliefs and continuous learning for everyone.

The propose model for school improvement recognizes the synergy of these dependent variable as well as goals that address quality education, leadership, quality control and assurance for school improvement. Recognition for quality education that is policy driven, with an emphasis on improvement of internal processes and whole school culture is likely to speed up school effectiveness and improve on quality not only in the OECS and St Lucia but in all schools.

APPENDICES

APPENDIX 1:CROSBY(1979) FOURTEEN STEPS FOR QUALITY IMPROVEMENT

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

APPENDIX 2: DEMING (1982) FOURTEEN POINTS FOR MANAGING QUALITY

1	Create constancy of purpose for continual improvement of products and services
2	Adopt a new philosophy and abandon traditional ways of working
3	Move from inspection to building quality into every product and process
4	Stop awarding contracts on the basis of lower bid-specify and buy quality
5	Engage in a process o continually improving every aspect of company activity
6	Use work base training techniques
7	The emphasis for leaders and managers must be on quality not quantity
8	Drive out fear by improving communication
9	Break down organizations barriers
10	Eliminate slogans and exhortations
11	Eliminate arbitrary numerical targets
12	Allow for pride and of workmanship by locating responsibility with the worker
13	Encourage education and self-evaluation
14	Create a management structure and culture that will drive the preceding 13 points

Appendix 3: Juran (1988) ten steps to achieve quality

1	Create awareness of the need and opportunity for improvement
2	Set implicit goals for improvement
3	Create an organization structure to drive the improvement process
4	Provide appropriate training
5	Adopt a project approach to problem solving
6	Identify and report progress
7	Recognize and reinforce success
8	Communicate results
9	Keep record of changes
10	Build an annual improvement cycle into all company process

APPENDIX 4: APPROACHES FOR MANAGING QUALITY (WEST-BURNHAM 1992)

Key features	
Quality Control	Concerned with product testing Responsibility with supervisors Limited quality criteria Some self-inspection Paper base system
Quality Assurance	Use of statistical process control Emphasis on prevention External accreditation Delegated involvement Audit of quality systems Cause and effect analysis
Total quality Control	Involves suppliers and customers Aims for continuous improvement Concerns product and processes Responsibility with all workers Delivered through team work

APPENDIX 5: LIST OF CORE OECS EDUCATION INDICATORS

Developed at the “Monitoring Education Reform in the OECS Workshop” Revised April 19th, 2000 Based on Reports of National Consultation. Castries, Saint Lucia.

Education Indicators	#
1. DEMOGRAPHIC, SOCIAL & ECONOMIC CONTEXT	
Relative size of school age population age groups:0-2, 3-4, 5-11, 12-14, 15-17, 18-24, 25-35 * * *	1
Adult literacy rate of population 15+ years that are literate.	2
GNP per capita based on purchasing power parities.	3
2. ADMINISTRATION, PLANNING AND SUPERVISION OF EDUCATION	
2.1 Strategic Function:	
Adequacy of existing education policies	4
2.2 Management Function:	
accountability mechanisms built into the organizational structure of the MOE, its institutions and programs.	5
2.3 Operational Function:	
Frequency and nature of staff performance appraisals at MOE, district and school levels.	6
2.4 Information Function:	
Accessibility of valid/reliable information to stakeholders on key performance indicators * * *	7
Extent to which performance information is use for decision making at MOE, district and school levels.	8

3.ACCESS	
3.1 Status of unsatisfied Need:	
Net intake rate into 1 st year of cycle.	9
Gross Enrollment Ratio (GER).	10
Net Enrollment Ratio (NER).	11
Availability of school facilities for special needs students.	12
3.2 Supply and Demand:	
Criteria for admission to schools, cycles or education programs	13
Proportional of adult population 25+ enrolled in adult continuing education programs * * *	14
4. EQUITY-Desegregation of student, teacher and school data as required by:	
Age	
Gender	
Parental Education * * *	
Residential or School Location (District/ Zone; Urban/ rural)	
Private/Public Institution	
Nationality	
5. RESOURCES	
5.1 Cost and Financing:	
Educational expenditure as a percentage of GNP.	15
Government expenditure on education by resource category as a percentage of total.	16
Current expenditure per student by government as a percentage of GNP per capita.	17
Current public and private expenditure per student by education level. * * *	18
Salary Compensation for teachers as a percentage of GNP. * * *	19
Ratio of students to non-institutional student support personnel. (e.g. guidance counselors) * * *	20
5.2 Human Resource:	
Percentage of certified(trained) teachers.	21
Gross student-teacher ratio.	22
5.3 Physical Infrastructure and Equipment:	
Average square feet of school area by student	23
Percentage of schools adequately equipped with A/V and reprographic equipment, computers for administration, telephone lines and internet services.	24
Availability of space for recreation * * *	25
5.4 Curriculum and Instructional Materials:	
Percentage of students with access to all required textbooks * * *	26
Average number of student per computer for teaching/learning activities.	27
Number of adequate sets of teaching guides and instructional materials per subject area.	28
6.TEACHING-LEARNING PROCESS:	
Net student teacher ratio.	29
Teacher attitudes and motivation.	30
Student attitudes and motivation.	31

Variety of pedagogical approaches and teaching practices used.	32
Utilization rate of instructional materials, textbooks and technology.	33
Proportion of instructional time spent on core subjects.	34
Frequency of assessments and promptness of feedback.	35
Adequacy of teacher preparedness.	36
Efficient use of classroom learning time.	37
7. SYSTEMS OUTPUTS	
7.1 Student Attainment:	
Attendance rate.	38
Transition rate.	39
Promotion rate.	40
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Survival rate.	42
7.2 Student Achievement:	
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Secondary student performance sitting CXC core subject exams * * *	45
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8. LEARNING OUTCOMES	
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Transition to the world of work.	47
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8.2 Relevane of Learning Outcomes:	
Youth employment and unemployment rates by educational attainment.	49
Level of employer satisfaction with tertiary level graduate employee work readiness.	50

APPENDIX 6: QUALITY EDUCATION INDICATORS FOR EUROPEAN SCHOOLS

A	B	C	D
Attainment	Success and Transition	Monitoring of school education	Resource and structure
1- Mathematics 2- Reading 3- Science 4- ICT 5- Foreign Language 6- Civics 7- Learning to learn	8-Dropout rate 9-Completing Secondary School 10-Participation in Tertiary institution	11-Evaluation and steering of school 12-Parental participation	13-Education expenditure per child 14-Education and training of teachers 15-No of students per computer

			16-Participation rates in pre-primary education
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