Quality Indicators in Schools

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I- Introduction: What Is Quality in Education

Schools in the Arab countries are not producing the educational outcomes that are necessary to meet the current and future challenges facing Arab countries. Statistical data on the state of education in the Arab region provides abundant evidence for this assumption: 53 million lacking basic literacy, 35% of school dropouts in basic education, in addition to various indicators for lack of quality (The Regional Arab Gathering for Meeting EFA goals, Qatar2006).

Leo Bradley in his book on "Total Quality Managements for Schools" (1993) criticized the nature of school reform efforts. These attempts pursued innovations while trying to fit change in existing governance and educational structures. Bradley called for substantial change involving governance, curriculum, instruction, staff development, assessment, and leadership. He proposed quality based schools model as a rational base in both theory and practice for school reform.

Other researchers refrained from a precise definition for the concept of quality at education (J,Woods 1998). Peter Karmel noted that "quality at education is a complex and diffuse concept, open to interpretations in a number of ways" (Woods, 1998 p6)
   This paper aims at describing the various interpretations of quality in school settings. Presenting a special focus on the nature of quality management as practiced today and exploring to which extent it is applicable to educational settings and organizations.

II- UNESCO's Perspective

In 1990, the World Declaration on Education for All stated six worldwide objectives to be attained by the year 2015. The sixth objective focused on "improving all aspects of the quality of education and ensuring excellence so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills".
The Dakar framework for action 2000, declared an expanded definition of quality focusing on four dimensions:

- Desirable outcomes: healthy motivated students
- Processes: competent teachers using active pedagogies
- Context: relevant curriculum
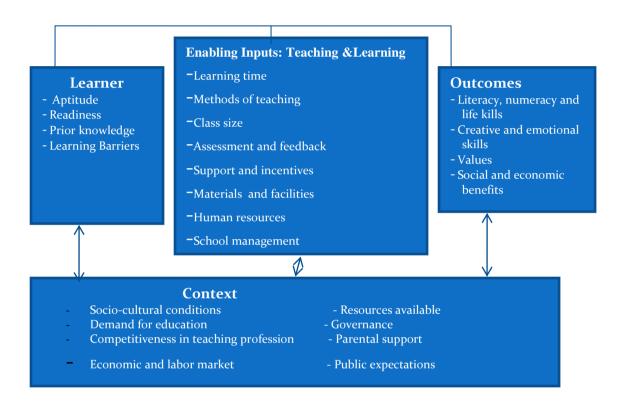- Systems: good governance and equitable allocation of resources

This definition did not ascribe any relative weighting for the aforementioned identified dimensions. The United Nations Educational, Scientific and Cultural Organization (UNESCO) regularly issued a global monitoring report which documented the worldwide progress in achieving the six EFA goals. The third issue in EFA Global Monitoring Report titled: the "Quality Imperative" further defined two principle objectives as the purpose of quality of education. First, to ensure the cognitive development of learners. Second, to nurture the creative and emotional growth of learners, and to help them acquire values and attitudes for responsible citizenship. The report emphasized a necessary condition to fulfill the goal of quality: an educational system characterized by equity towards all groups. The report presented various educational thoughts which

yielded different emphasis on notions of quality. Following is a summery of what mainly characterized each approach. (EFA Global Monitoring Report, 2005,ps: 32, 33, 34).

Approaches	Quality in the indicated tradition:
Humanist approaches: this approach endorses principles related to humanity as equality among all people, human nature is essentially good and each person defines his/her own reality. These principles are related to the educational domain since learners during the acquisition of knowledge build their own meanings and theory.	- Predefined curricula and objectives are rejected because they limit the abilities of the learner. - Assessment is an evaluation that describes the quality of individual learning. - The teacher's role is more that of facilitator than instructor. - Learning is seen as a social practice rather than the result of individual intervention.
Behaviorist approaches: behaviorist approach is the opposite of humanist approach since it is based on the concept that learners aren't able to define their own meanings and that human behavior can be controlled. This approach is observed in many countries through followed curricula and class operation behavior.	- Predefined curricula and objectives are endorsed. - Assessment is a measurement of what's learned according to predefined objects. - Learning process basis are tests and examinations, rewards and punishment. - Learning is mainly controlled by the teacher; incremental learning tasks that reinforce desired associations in the mind of the learner are favored.
Critical approaches: the critical approach emerged from several critiques to both behavioral and humanist approaches. It is based on the concept that society is made up of integrated and related parts that share common values. Education's role is the dessimination of these values and thus quality is measured according to the level of value transmission .	- Education that prompts social change. - Learners participate in the learning process by implementing their learning experience. - Adopting curriculums and teaching techniques that favors critical analysis of ways in which formal knowledge is produced and transmitted.
Indigenous approaches: this approach challenges predefined knowledge, images, ideas, values and beliefs presented usually in curricula.	- Each society has its certain social and economical characteristics that do not necessary resemble European characteristics. - Maintaining relevance between imported and local values requires engineering of the curriculum content, pedagogies and assessment. - Learner's participation in defining their own curriculum. - Learners already possess prior knowledge through previous experiences; educator's role is developing this background. - Learning process exceeds the limitations of the school to lifelong learning experiences.

UNESCO's frame work for understanding Quality in schools

To fulfill the aim of monitoring the progress in achieving quality of education, UNESCO developed a framework "for understanding education quality" (EFA Global Monitoring Report 2005 p. 36). This framework was considered as the backbone for data collection and analysis in reporting the progress in various areas of the world. The framework considered inputs which are processed to produce certain outcomes.

Learner
- Aptitude
- Readiness
- Prior knowledge
- Learning Barriers

Enabling Inputs: Teaching &Learning
- Learning time
- Methods of teaching
- Class size
- Assessment and feedback
- Support and incentives
- Materials and facilities
- Human resources
- School management

Outcomes
- Literacy, numeracy and life kills
- Creative and emotional skills
- Values
- Social and economic benefits

Context
- Socio-cultural conditions
- Demand for education
- Competitiveness in teaching profession
- Economic and labor market
- Resources available
- Governance
- Parental support
- Public expectations

Indicators for measuring quality:

Quality indicators in schools are measurable factors that reflect the level of quality schools possess and are actually providing to their beneficiaries. But according to which basis, facts, or reasons these indicators are specified and set.

UNESCO's approach sees that indicators are defined according to the factors that affect education quality. Identifying what matters for education quality is not an easy mission because of the complexity of the educational system; there exist relationships between teachers and students, curriculum and teaching techniques, schools, and the relevance between values delivered by schools, families and society in general.

Moreover these relationships are controlled by resources used by schools. In their EFA report, UNESCO concentrated on two dimensions as quality indicators for schools: The economic and the school environment dimensions.

Indicators from an economic dimension:

Indicators under consideration were:

- PTR : Pupil/ Teacher Ratio (input)
- Teacher's academic degrees (input)
- Student's test scores(output)
- Teacher's salaries (input)
- Repetition and dropout rates.(output)

Explanation: Indicators were best explained by examples. Considering an example of PTR (pupil/ teacher ratio) in the United States, where by the ratio decreased by almost 40% between 1960 and 2000 while the proportion of teacher's carrying at least a master's degree doubled, and yet students showed a slight increase in math and reading performance over the 30 years.

What are the reasons behind the difficulties in increasing test scores and therefore attaining better quality?
Lee and Barro (2007) presented strong results explaining the role of school resources in determining test scores. Their result suggested that a decrease in PTR by 12.3 in 1990 increased test scores by 1.8 points. This implies that smaller classes result in higher achievement, but only when associated with other factors. Second, considering teacher's salaries in over fifty-eight countries showed that higher salaries lead to remarkable increase in test scores. Third, reductions in PTR were associated with reduced rates of dropouts and repetition. Lee and Barro suggested that enhancing such inputs will lead to enhance in educational outcomes and therefore enhance in quality level. (Reference: EFA Global Monitoring Report, pages: 60, 61, 62)

Indicators from a school-environment dimension:

Indicators under concern were:

- Class time (process)
- Home works (process)
- Methods used to measure student's progress (process)
- Teacher's expectations and experiences (input)

Explanation: Studies concerning the elements that lead to effective instruction or learning began to emerge mainly over the 1980s. It was found that the time spent in learning, teacher's techniques and methods used to control the class and student's evaluation methods played a significant role in improving student's performance and thus improving school quality (Stallings, 1985). First, regarding effective learning time , it is not extending teaching hours what produce higher performance, but how time spent effectively on learning (Stallings and Mohlman, 1981). Second, effective teaching methods depended on the type of the given material. Materials requiring memory are best given through a coherent and ordered technique while materials requiring understanding and concentration are best given with examples and presentations. Third, teachers showing low expectations of their students lead to drop down in performance, loss of interest in the task and even more negative

consequences on some students. (Hoeven- Van Doornum and Jungbluth, 1987 as cited in the EFA Global Monitoring Report ,2005).

III- Total Quality Management In Schools: The Business Analogy Perspective

There is no specific and determinant definition of total quality management since this concept is constantly developing. Some elements concerned with total quality management in the past are no longer adopted, same for current elements which will not be relevant in the future. Yet, what remained constant over many TQM definitions was the best use of available resources to meet the maximum need of beneficiaries in any kind of organizations.

Business Origin:

Quality management theories initially emerged from business organization, post world war two, due to the need of reducing wastes and attaining high quality level of products and services especially with the expansion of markets and the growing competition. Defect prevention was the dominant thrust leading to a continuous emphasis on quality control. Quality control was based on two processes planning and analysis which still constituted the foundation of quality control today. Another significant new quality control trend prevailed in the 1980's and 1990's. The efforts of the Japanese theorists Ishakawi and the American Edward Deming were behind the new momentum. Other specialists who've been concerned with the studying of TQM concepts were (1982), Crosby (1979) and Juran (1988). Those specialists presented different approaches for total quality management that involved people, resources and management practices aiming at achievement improvement, development, competition and profitability. Hough (1994) adopted the business practices of TQM to educational organizations. (woods, 1998).

Application of TQM Principles in Schools

Some schools do apply the TQM industrial analogy principles. In schools students are the workers and the products, teachers and administrators are the managers and the board of education is the board of directors.

Leo Bradely in his book Total Quality Management for Schools(1993) described the hierarchy as follows:

1. Students are the workers and the products. The success and failure of the school depends on the quality of their work.
2. Teachers are the first-level managers. Therefore, the teacher will be the leader of the class, emphasizing quality through no coercive management featuring students as workers and teacher as coach, provoking the students to learn how to learn and thus to teach themselves.
3. Administrators are middle and upper level management. The productivity of any school depends mostly on the skills of those who directly manage the worker, i.e., the teachers. According to Deming, their success in turn depends on how well they are managed by the administrator above them. Therefore, any attempts at educational quality are best centered on organizational improvement efforts.
4. The Board of Education is the board of directors, thus responsible directly to the clients, and board members are the overseers of the administration.

The same book aimed at discussing how the quality principles could be adapted to education. The author included in his book the results of a combination of both primary and secondary research results conducted to identify quality characteristics in an enterprise. The research study observed the Quality efforts in eight companies which provided information regarding their processes and the components of their quality efforts. The researchers concluded seventeen common quality characteristics among the eight enterprises which were supported by the literature review on Quality management. The second part of the book described how the seventeen identified characteristics be applied to a school setting.

Below is a brief account of the seventeen quality indicators:

Client Satisfaction and Continuous Improvement
1. Continuous Improvement Standard: Old systems of quality control were built on pre-established standards and tolerance that would remain unchanged for a long time. The new concepts of quality control were based on continuous improvement. Improvements were continuously applied to the established standards. In education, we deal with people who vary in their intellectual, physical, emotional and environmental makeup which allowed for continuous improvements standards to be more applicable than fixed standards. Therefore, instead of setting and measuring standards each year, schools would establish a baseline of data and work on improving it continuously. Whenever a set standard was achieved it would be considered one of the school characteristics and another new challenging standard should be planned for, while always keeping in mind the improvement dimension in setting any new standard.
Organizational Focus
1. The use of consumer research: The use of consumer research would help the organization to reinforce its positive sides, realize and indicate weaknesses thus helping the management in decision making. Moreover, the data provided by the consumer would result in meeting consumer needs and expectations. Schools using consumer research have to change their concept from information giving to information gathering. The audience of the educational organization has always received school programs, they haven't been asked to initiate programs. Two ways of communication with the audience (gathering and giving) would help improve the educational institutions by gaining customer satisfaction and contribution. Some areas which should be covered by the investigations are: curriculum, programs, services, policies, personnel, facilities, and procedures. The process starts by identifying the quality characteristics that are going to be used as the basis for research , compiling the baseline data upon which continuous improvement would be judged, analyzing the data and continuously tracking any trends or tendencies to judge continuous improvement, and finally combine consumer research with other information and commonsense in making decision.
2. The external quality concept: The external quality concept is defined as the attempt to improve the quality of the incoming product. In case of schools, the product is the student or child who is entering the school for the first time. Preschool is absolutely essential to improving the incoming students. Parents are the "suppliers" who have direct impact on the quality of the products; therefore schools should have preschool and parenting programs. In higher education levels,

school personnel need to go out to universities and work places to find out their expectations in order to provide their students with proper development and education to fulfill these expectations.
3.Quality function deployment: In order for schools to use quality function deployment, more educational decisions (curriculum, instruction, testing) will have to be made by the clients of the school. Quality function deployment is the shifting of the power in the drive for quality from the institution itself (in schools they are the administration and teachers to the beneficiaries of the institution (students, parents, higher education institutes, future employers…). Therefore, the board of education, the administration, and the teachers will have to commit themselves to sticking with quality function deployment and indeed with the whole total quality management movement for the long term.
Measuring Progress in Schools
4.Statistical process control: Statistical process control (SPC) means that the school educational processes are operating in a way which allows for the maximum potential of teachers (teaching) and students learning. The specific purposes for SPC in schools are: 1) to explain variation (in ability, motivation...) through the proper use of special and common causes; 2) to use statistical data to make predictions; 3) to provide data to answer the question "how are we doing?" Statistical process control tools such as charts should all relate to organizational aims and should measure criteria on a consistent basis. SPC concentrated on the learning process rather on individual achievement data. The purpose is not to rank but to improve the educational processes.
5.The internal quality concept: To apply internal quality concepts, education must first identify who are its internal customers. Internal customers for preschools are primary schools, for primary schools they are intermediate schools, for intermediate schools they are middle schools, for middle schools they are high or secondary schools, and for high schools they are higher education institutes and the world of work. Thus educational planning must start by asking each internal beneficiary "what are your needs?" and to totally integrate the needs in the designed plans from preschool through adulthood. Internal quality in schools would be better served if the school could cut down on the number of different operations performed on each student. For example, teachers would stay with students for more than one year in elementary grades and teachers would work in teams to validate internal quality by adjusting curriculums and instruction to meet student needs.
6.The use of human sensors: Education only has one product, a human being and the knowledge, skills, and attitudes that are developed as a result of his/her schooling experience. Both in education and industry, human sensors are less accurate than non human sensors when measuring a product. However, since processes have become just as important as products in industry, the use of human sensing is accepted as a part of the quality functions. That has always been true in schools. The challenge for both is to improve the nature and use of human sensing.
Reallocation of Resources
7.Quality teams: The educational program quality calls for the involvement of both the administration and teachers together. As schools become more involved in the quality movement, they discover the benefits of having people at all levels of the school organization working together in teams.

There are two types of teams needed for educational program quality leadership: project teams and guidance teams.

Project teams: the main job of the project team is to improve the work process in the curriculum and instruction or the connection by: 1- finding solutions to problems and 2- finding ways to improve. They plant the seeds of "quality leadership" and they are the classroom through which the entire school operation learns lessons such as how to work as a team, how to improve processes using scientific methods, and how to provide an opportunity to empower groups at the teaching level

Guidance teams: the guidance team is a group of administrators and other key leaders who oversee and support the activities of the project team. The guidance team has three to six members with diverse skills and resources who all have a stake in the chosen process. These people must posses the authority to make changes in the process under study, as well as the courage to do so.

8. **Flattening the hierarchy:** Flattening the hierarchy is based on self inspection at the operator level and the total quality management concept. Currently, decisions and processes of curriculum and instruction are largely being carried out in the central offices by curriculum and instructional supervisors, coordinators, and other defined specialists. The flattening out of the hierarchy means that these peoples role will be shifted to teachers; it has the most promise for schools because the end result would be the true professionalization of teachers. Teachers would have increased involvement in curriculum and instructional decision making. The flattening out of the hierarchy and the resultant professionalization of teaching would also create new approaches to the instructional leadership of the principal.

9. **Natural work groups:** Natural work groups are groups made up from the entire school community. They include staff, administration, and teachers. Teachers constitute the most important work groups because they are responsible for the design and delivery of the three aspects of schooling: curriculum, instruction, testing. Currently, most teachers are only involved in the instructional phase. Involvement here means making decisions on what content makes up the curriculum, what are appropriate teacher and learner behaviors, what tests or assessments will be used, and how they will be applied to individual students. If teachers do not have the expertise to be involved in all of these decisions, then the school must provide them with the professional development opportunities that will make their involvement successful.

10. **Empowerment:** Total quality research clearly states that workers (students), staff, teachers, board, and administration should be partners in quality. Since teachers are the persons responsible for delivering the product of the school (teaching), empowerment will be mainly concerned with teachers. The empowerment of teachers will require them to do more work than they currently perform. This change must professionalize teachers, rather than giving them more procedural tasks to perform. The key elements to teacher empowerment are: training, time, money, and ongoing district support.

Specific areas of empowerment:

▶Curriculum: the delivery of the school's curriculum and instructional expectations is complex and teacher will be able to perform this task if they feel a sense of ownership for this task. The process of curriculum design and development must become part of the natural work function of teachers. For example, every teacher affected by curriculum content must be given the opportunity for input during the development process.

►Principal leadership: if a school is going to create and maintain teacher empowerment, the principal must adopt a "servitor" leadership style. This style is characterized by the leader serving the needs of the client system; it is the leadership style consistent with empowerment. The two assumptions that must be present for servitor leadership style to work are:

- The teaching staff has the experience and knowledge level necessary to make decisions and solve problems
- The teaching staff is at least as knowledgeable as the principle on the profession

11. **Abandonment:** Abandonment, as it is being used in industry, has applications to both school curriculum and personnel.

In curriculum, the content offerings have grown to the point where focus and constancy of purpose have become vague. Something must be abandoned to recapture focus in curriculum content. Three abandonment options are possible to reassert focus and constancy of purpose. First, schools could abandon the instructional structure: that is, nine months of schooling a year, for twelve or thirteen years. If this structure was abandoned in favor of one with more instructional time, then content will not have to be abandoned. A second option is to abandon curriculum content. This would be done by reestablishing focus on determining what to be abandoned and what to be kept. A third option is to abandon the focus on student recall of content and substitute a focus on research skills.

In personnel, abandonment would mean reduction in supervision whose function is to monitor (inspect) class- room performance of teachers and curriculum coordinators or developers. It would also mean a reduction in other administrative positions that do not contribute to the instructional programs of the schools.

12. **Reduction in inspection:**

Teacher inspection: central to the theme of less inspection and monitoring is the belief that teachers are capable of quality responsibility. To reduce inspection and monitoring, schools need to put responsibility for quality on the shoulders of their teachers. Principals or other administrators would only monitor if such activities produced a significant response. Principals would stop spending hours in classroom observations and follow up conferences just to say "good work, keep it on. His role would become more of a resource person than that of an inspector.

Student's inspection: students enter the school with diverse background and skills. The notion of product inspection, as defined in industry, is not transferable to education without adaptation. Human beings vary so much that it is not possible to have one set of specifications for all of them. Current school reform efforts are based on traditional inspection thinking. If education followed current industrial leadership in inspection, it would reduce money and human resources devoted to inspection. Ways to do this would be:

- Using individual planning for each student since students vary in their abilities.
- More emphasis on teacher training to improve the learning process
- More money for learning materials instead of teaching materials
- Continuous improvement as the evaluation measure for schools, teachers, and students, as opposed to testing results based on stationary norms.

Total Quality Management Philosophy

13. **Change in management philosophy:** The new quality management philosophy in this analogy focuses on meeting and exceeding the needs and expectations of

the clients. A second focus is on the acceptance and pursuit of continuous improvement as the only useful standard or goal. The new management philosophy is based on the acquisition of knowledge; this knowledge is based on four components which people in leadership must understand and apply in order to provide leadership for total quality:

- Systematic thinking: is the interdependence of school functions with their sub processes and of the organization with its people.
- Theory of variation: is the understanding of differences between various causes. When leaders understand these variations they will be able to work toward quality within the framework of individual differences.
- Theory of knowledge: Prediction is a major component of TQM. Schools through prediction and long-term perspective can expect to succeed over a long time.
- Knowledge of psychology: the new philosophy is based on understanding the needs of people and their differences. Leaders must be able to understand and free up the potential differences between the people of the organization.

14. **The 85/15 rule:** The 85/15 rule assumes that at least 85 percent of an organization failure are caused by management controlled systems. Workers can control no more than 15 percent of the problems. To accept the 85/15 rule means that schools, especially administrations must adopt a new attitude toward teachers. Some of the dominant managerial myths in schools are such as:

- The teaching staff is mainly responsible for school's problems. (Reality – Leadership is responsible for 80 to 90 percent.)
- Teachers could do good quality work, but they lack the motivation. (Reality – Teachers need to be empowered.)
- Quality will get top priority if upper management so decrees. (Reality – It will not happen without fundamental changes.)
- To change people behavior, it is first necessary to change their attitude. (Reality – It is the other way around).

When school leaders come to accept that 85 percent of the problems of education are due to organizational structure, and only 15 percent to personnel, they will be able to take concrete action toward changing this structure. Only in this way will it be possible to implement a program of total quality management in schools.

15. **Quality as a people issue:** Education is a human endeavor. Thus, industries definition of quality which is based on two criteria: customer satisfaction and continuous improvement, fits well with education better than the current educational definition of quality centering mainly on standardized test scores. Measuring human beings is rather hard but measuring improvement is not difficult. Customer satisfaction gets to the issue of how well people perceive yr efforts. Moreover Quality cannot be a people issue in the schools so long as teaching is an isolated activity and anything else that a teacher does is "extracurricular". Education must rid itself of the "extracurricular" to achieve the quality approach. It is impossible to achieve the personal development required for a total quality movement so long as the natural work group of teachers consists of one teacher, isolated except for department or grade level meetings, with the natural work activity being teaching only.

16. **Employee suggestion program:** Employee suggestion program is based on the concept that people doing the work usually know more about the work than the people supervising the work. This concept represents a change in management philosophy, proposed by total quality management, to allow for increased

participation from the teachers part.

IV- ISO 9001:2000 Application in Education

ISO (the International Organization for Standardization) is a worldwide federation of national standard bodies. ISO's technical work is normally carried out through ISO technical committees in which each ISO member body has the right to be represented.

The International Standard is concerned with the effectiveness and efficiency of the quality management system adopted by an organization. It aims at the achievement of ongoing improvement.

In order to respond to urgent market requirements, ISO has also introduced the possibility of preparing documents through workshop mechanism, external to its normal committee processes. These documents are published by ISO as International Workshop Agreements.

The IWA2 under the title "Quality Management Systems- Guidelines for the application of ISO 9001:200 in education" was carried in Mexico (Acapulco 2000) during the workshop held under the leadership of the National Committee for Standardization on Quality Management Systems.

ISO in Education

Quality management systems are applied to several kinds of organizations and are influenced by the different characteristics of these organizations. Thus, quality management systems do not impose uniform structure; it is flexible according to the needs, objectives, products and services, work processes and structure of different organizations.

Quality management systems have been applied to educational institutions, one of these systems is the ISO, a quality management system that provides standards and guidelines to organize and control educational practices.

Curriculums are mostly concerned with the material to be given to students and how to supply it to students. Curriculums aren't often concerned with the quality of education delivered. Quality of education is represented by the amount of knowledge that is expected to be delivered ,and not having deficiencies, in educational organizations. The need to prevent these deficiencies has lead to the adaptation of quality management systems which provide instructions and measures that ensure the effectiveness of the learning process.

Quality management systems should be simple but also comprehensive to meet the quality objectives for the educational organization.
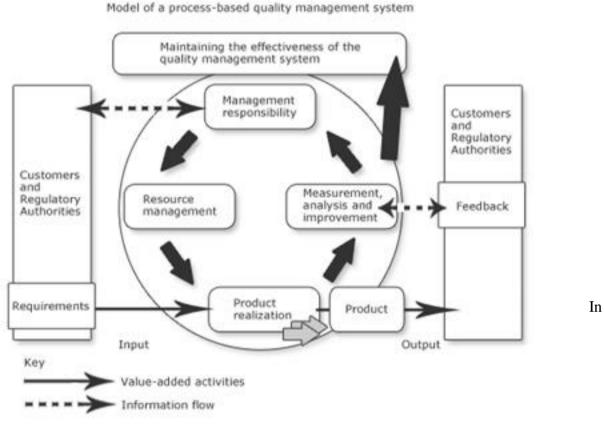
Process approach

A process is defined by a set of inputs transformed to produce certain outputs. Since organizational work is usually interdependent, the output produced by one process constitutes the input of other process. The organization can function effectively upon

clearly defining different activities, and specifying a system to process related activities. Such approach emphasizes the importance of:

- Understanding and meeting requirements.
- The need to consider process in terms of added value.
- Obtaining results of process performance and effectiveness, and
- Continual improvement of processes based on objective measurement.

The process- based quality management system provides a model that shows the linked activities, inputs, outputs and how they are processed.

Figure 2

Model of a process-based quality management system

Maintaining the effectiveness of the quality management system

Customers and Regulatory Authorities

Management responsibility

Resource management

Measurement, analysis and improvement

Customers and Regulatory Authorities

Feedback

Requirements

Product realization

Product

Input

Output

In

Key

Value-added activities

Information flow

Relevance with process approach, the methodology "Plan-Do-Check-Act" can be applied to all processes. It is briefly described as follows:

- Plan: setting objectives and processes involved to attain these objectives according to customer needs and organization's policies.
- Do: implement the processes.
- Check: measurement of the processes according to the objectives set and attained results.
- *Act*: taking actions to improve performance using the data generated from step three

Process approach in educational organizations

Defining processes is an essential element for educational organizations that provide educational product. These processes include administrative services and other forms of support, as well as those concerning assessment, such as:

- A strategic process to determine the role of the educational organization in the socio-economic environment
- Provision of the teaching capability of the learning providers
- Maintenance of the working environment
- Developing, reviewing and updating study plans and curricula
- Admission and selection of applicants
- Student's education follow-up and assessment
- Final assessment aimed to grant the student an academic degree, a degree that will be supported by a diploma, acknowledgement, bachelor's degree or certificate of competencies
- Support services for the teaching- learning processes carried out for the satisfactory accomplishment of their curricula, and support to the student until he/she can succeed in obtaining his/her academic degree or certificate
- Internal and external communication
- Measurement of educational processes

General requirements in the educational organization

In order to comply with the ISO standards, educational organizations should identify the type, size, nature and other characters of the organization to which the quality management system is to be applied. The implemented quality management system should continually improve the effectiveness of the organization in accordance with the requirements of the International Standard.

The guidelines for performance improvements according to ISO basis are the following:

- Systems and processes: The different processes of the educational organization should be stated and managed. The different processes are those related to educational design, educational development, educational delivery process, procedures for implementation, and measurement of results.
- Determine the criteria and methods needed to ensure that both the operation and control of these processes are effective
- Continual improvement of these processes and provision of resources.
- Using the above listed guidelines will help the organization separate between the different processes and services that are delivered, making it easier and clearer to identify the functionality of each element and the needed improvements.

In educational or instructional organizations, quality management system should be established and applied in the context of curriculum, learning process, organizational structure, responsibilities and available resources. These elements are what make the educational organization. Control within the educational institution can be applied on the operation of the following processes:

- Instructional needs analysis
- Instructional design
- Instructional development
- Delivery of instruction
- Instructional evaluation
- Educational faculty organization development; and
- Operation of libraries, workshops, and laboratories.

Guidelines for performance improvements

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a. Systems and Processes: *Managing systems and processes*

Successful organizations are those that apply a quality management system that ensures continuous development and improvement in the performance of the organization, taking into consideration the needs of beneficiaries and other interested parties. Since the needs of beneficiaries are essential for the functionality of the organization, management should work to create a customer- oriented organization. This is done through:
- Establishing systems and processes that are clear and easily understood by employees and beneficiaries.
- Ensuring effective control and measurement of the organization's performance relying on statistics and consistent data.

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b. Determine the criteria and methods needed to ensure that both the operation and control of these processes are effective

1. **Use of quality management principles:** Managers are responsible for leading the organization toward development and improved performance. The International Standard provides eight quality management principles to be adopted by managers:

   a) **Customer focus**: Organizations should concentrate on meeting the needs and expectations of their customer since customers determine the existence of the organization.

   b) **Leadership**: Leaders direct the organization to achieve its objectives through maintaining control over internal environment in which people are involved in different activities.

   c) **Involvement of people**: Organizations should take advantage of the potentials and experiences of their entire people at different levels.

   d) **Process approach**: Processes should be defined and applied in order to achieve the objectives more effectively.

   e) **System approach to management**: Different interrelated processes of the organization should be managed through a system that ensures the efficiency of the work process and achievement of objectives.

   f) **Continual improvement**: Learning organizations should always seek to attain further development which leads to higher level of performance.

   g) **Factual approach to decision making**: Effective decisions are based on the analysis of data and information

   h) **Mutually beneficial supplier relationships**: A beneficial relationship between the organization and its suppliers increases the ability of both to create value.

2. **Planning:** Quality objectives are set according to organization's strategic

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planning and the quality system adopted by the organization. Quality objectives should be a part of the organization's overall objectives and should include performance measures and indicators. They are established according to company's current state and future expectations, allocated and available resources, and the needs of customers. Quality objectives should be clearly transmitted to people in the organization so that they can contribute in their achievement.

3. **<u>Documentation</u>**: Documentation in educational organizations is done through developing a quality manual which explains the range of the quality management system adopted by the organizations, interactions and processes. It also includes references to all applicable documented procedures required by ISO 9001, and it may also include references to issues not required by ISO 9001 but are important to the organization such as:

   a) Terms and definitions required by the organization
   b) Regulatory and organizational policies
   c) Applicable laws and regulations
   d) Accreditation and certification programmes
   e) Study plans and curricula
   f) Competence programmes: awareness, education, training and updating
   g) Support services

Access to documentation should be ensured for people in the organization and other parties based on the organization's communication policy

c. Continual improvement of these processes and provision of resources

1. **<u>Responsibility and authority</u>:** Organizations are divided into several divisions with different authority levels. Managements are responsible for defining the communication, responsibility, authority delegations of employees in each functional area of the organization.

2. **<u>Human resources</u>**: Customers should be assured that the educational organization has qualified teachers and instructors that provide student's educational requirements. Educational organizations should also have a personnel staff that ensures competence of teaching among other organizations. Ensuring competence includes elements like:

   a) Adaptation of curricula to accommodate scientific and technological changes
   b) Assessment of student achievement and organization effectiveness based on fulfillment of educational goals
   c) Ensuring staff competence for carrying out their functions

3. **<u>Measurement, review and improvement</u>:**
   Measurement of performance is important to indicate the functionality of the organization, allows for proper decision making, and leads to improvement. Educational organizations should provide a system for collecting data; this data will be used in measurement in order to ensure the effectiveness of the teaching/learning process. Organizations may use control graphs, histograms, Pareto charts, surveys, measurement of variables related to administration, measurement of variables related to students, teaching/learning process and other indicators such as failures, expenses, dropouts and student's performance. Measurement in educational organizations could be done through:

   a) Realizing the important measures that needs monitoring
   b) Establishing qualitative and/ or quantitative measure

c) Converting information to knowledge

Measurement is an essential element of any quality management system, it reflects the states of the organization, shows the weaknesses and strengths thus making it possible to monitor and improve weak points, and also empower strong points.

Internal audit: Audit programmes are designed according to the structure of the organization, taking into consideration the processes and areas to be audited. Educational organizations should consider internal audits according to fields related to the educational product, accreditation and certification, failures in the teaching/learning process, effectiveness of teaching methods, educational processes and the performance of the quality management system. All results of the auditing process should be documented according to the documentation requirements of ISO.

Examples of educational aspects to be evaluated:
- Verifying the implementation of stated procedures
- Verifying the achievement of quality management system requirements (Key Performance Indicators KPI)
- Verifying the allocation of resources needed to attain the objectives
- Activities of the organization personnel that affect quality

Ensuring that ISO requirements are known, implemented, and maintained

Self assessment: Self assessment is management's responsibility and it should be planned according to the priorities and objectives of the organization. It is an important and critical evaluation that reflects the position of the organization, the effectiveness and efficiency of its work, and provides guidance for decision making and investment of resources. Thus, self assessment is done to evaluate the performance of the organization; it can also be used by organization to benchmark its performance against external organization or international standards.

There exist many models for quality management system self assessment in an organization. The self assessment perspective provided by ISO 9004 is simple and can be easily applied; it determines the degree of maturity of the organization's quality management system and identifies areas for improvement.

One features of the ISO 9004 self assessment approach is: Facilitate maturing of the quality management system towards world-class performance

Review Data are collected from various areas and processes that are related to the performance, effectiveness and efficiency of the organization. The analysis of these data constitute the basis of decision making concerning regions to be improved, investments, and any other concerns of the organization. Educational organizations collect data that are mainly related to the educational process. Such data can be collected from:
- Management review
- Teachers, students and administration
- Curriculums
- Outputs of audits
- Customer and other interested parties opinions (Customer research)
- Educational program and teaching techniques
- Surveys
- Outputs of key performance quality indicators

The data collected will undergo certain statistical techniques which will transform the gathered data into valuable information; information that demonstrate the reality of the organization. Once the analysis is done, it should be transformed into actions that support improvement or end certain activities.

Improvement: Since the environment of the organization is in continual change and improvement, organizations should also be in continual change and development in order to handle the changes and preserve its competence in the market. Educational organization should seek for improving the effectiveness of their quality management system and educational processes by allowing all personnel to identify and establish improvements within their scope. Potential improvements are usually identified according to the results of the analysis of data. The data is collected from various resources as stated previously. The improvement process should meet the needs and expectation of customers and other interested parties in order to ensure their present and future contribution to the organization.

V- EFQM Excellence Model

BASIC CONCEPTS OF (EFQM) EXCELLENCE MODEL

EFQM's (European Foundation for Quality Management was one of the institutes who turned to TQM models as an effective and practical tool to develop more effective school operations and practices .

In order to reach this goal EFQM developed what they called the EFQM Excellence Model. They defined the model as "a practical tool to help organizations establish an appropriate management system by measuring if they are on the path to excellence, helping them to understand the gaps."

The authors claim was that the EFQM model ensured quality and reserved dynamics. The excellence model was defined by eight quality management concepts. These quality concepts could be applied to any kind of organizations. However, excellent organizations would be aware of the importance of these concepts and therefore adopt them in their work processes. Following is a brief account of the eight concepts. (Anymale, Stephen, Chukuwu, 2007).

1. **Results Orientation**: Organizations aim at achieving the results that delight all the organization's relevant stakeholders such as the people employed, customers, suppliers and society in general as well as those with financial interest in the organization.
2. **Customer Focus**: This concept entails that organizations should create sustainable customer value. The customers are the final judgers of product or service. Quality and customer loyalty, retention and market share gain are best optimized through a clear focus on the needs of current and potential customers.
3. **Leadership and Constancy of Purpose**: Organizations need visionary and inspirational leadership, coupled with constancy of purpose. The behavior of an organization's leaders creates a clarity and unity of purpose within the organization and an environment in which the organization and its people excel.
4. **Management by Processes and Facts**: Organizations should be managed through a set of interdependent and interrelated systems, processes and facts. The model

assumes that organizations perform more effectively when all inter-related activities are understood and systematically managed and decisions concerning current operations and planned improvements are made using reliable information that includes stakeholder perceptions.

5. **People Development and Involvement**: Organizations should maximize the contribution of employees through their development and involvement in organization's activities. The full potential of an organization's people is best released through shared values and a culture of trust and empowerment, which encourages the involvement of everyone.

6. **Continuous Learning, Innovation and Improvement**: Organization's should challenge the status quo and affect change by using learning to create innovation and implement opportunities; and managing and sharing of knowledge within a culture of continuous learning, innovation and improvement.

7. **Partnership Development**: Organizations should develop and maintain value-adding partnerships. An organization works more effectively when it has mutually beneficial relationships, built on trust, sharing of knowledge and integration, with its partners.

8. **Corporate Social Responsibility**: Organizations should exceed the minimum regulatory framework in which the organization operates and to strive to understand and respond to the expectations of their stakeholders in society. Adopting an ethical approach and exceeding the expectations and regulations of the community at large best serve the long-term interest of the organization and its **people.**

The EFQM model framework was based on nine criteria constituting of five institutional enablers and four results. The five key enablers of excellence are leadership, people, policy and strategy, partnership and resources, and processes. The results part consists of people, customer, society and key performance, and results which we target, measure and achieve. Each of the enablers and results are broken down into criterion parts to help develop and support knowledge and learning in the concerned area. These activities enable an excellent organizational performance, as demonstrated by the results. The organization can demonstrate that chosen approaches and strategies:

- are effective and efficient in delivering results;
- are elaborated to their full potential;
- demonstrate continuous improvement

Following is an example of one of the key enablers "Leadership" and its application in EFQM: **Leadership in the Context of EFQM**

The concept of leadership is one of the five key enablers of the excellence model. The excellence model supports the concept that all people in the organization can contribute in performing the aspects of leadership in the organization through four dimensions:

1. Leaders develop the mission, vision and values and are role models of a culture of excellence: Leaders are responsible of defining organization's current position (mission), where the organization aims to be in the long-run (vision) and the support needed to achieve its vision. Achieving organizational

goals requires the demonstration of a strong leadership were leaders commit to organization's values and acts according to them.

2. Leaders are personally involved in ensuring that the organization's management system is developed, implemented and continuously improved. This approach considers the role of the management in realizing strategic ambitions by finding suitable conditions, creating the structure of the organization that supports these strategic goals, and by measuring what's been achieved of these goals.

3. How leaders are involved with customers, partners and representatives of society: Leaders should consider and satisfy the needs of the stakeholders in order to ensure their long- term contribution to the organization.

4. How leaders motivate, support and recognize the organization's people: This approach considers the role of leaders in delivering the mission, vision, values and objectives of the organization to its employees, and the role of leaders in creating a productive environment based on confident relationships with employees and enhancing motivation.

The EFQM model is considered to be flexible and can be applied to different kinds of organizations. It provides a framework for realizing objectives and measurement of the achievement of these objectives through the 'Result' criteria.

VI- Quality Assurance

Taking another perspective of quality, Walker (1994) found that it is hard to clearly define what constituted quality in schools due to the lack of clear and agreed professional standards. He distinguished between 'quality assurance' and 'quality management. Quality management is related to the organizational culture. It is a process of strategic planning, implementing, monitoring, and evaluating. Quality assurance is more concerned with 'accountability' and 'improvement'. It is the process of revealing weaknesses in order to improve and raise performance. Quality Assurance is diagnostic based on revealing weaknesses to be addressed to raise performance.

Peter Cuttance, former Director of the Education Review Unit of the South Australian DECS (1995), also had views related to the concept of quality assurance. He distinguished between 'quality control', 'quality assurance' and 'quality management'. Quality control is the comparison of outputs with the existing standards such as student grades. Quality assurance is concerned with determining and preventing possible defects and focusing on processes to attain accountability and improvement. Quality management is the complement of quality assurance; it required continuous review of the needs of school beneficiaries and an integrative management approach of continuous monitoring and improvement of all aspects of the school's mission.

Cuttance rejected the scientific perspectives of TQM that viewed schools as business organizations. He proposed a softer version of quality assurance which brought together the features of continuous improvement and accountability. He preferred other methods of collecting data for measuring quality. He collected data through observations, interviews, and document analysis during regular school review (Woods, 1998).

Cuttance argued that accountability was assured by the public nature of the review which builds systematically the standards of practice, and the expected outcomes of school's

work. The review contributed to the improvement of schools by being conducted in such a way that involved all school community and incorporated effective follow up on the review findings and recommendations. This way schools would be part of the review process and attain accountability. This concept of quality assurance was adopted by other researchers such as Highett (1993), who complemented Cuttance perspective by raising the issue of the extent to which schools can become 'learning organizations' where teachers engage in critical reflection on the core business of teaching and learning.

Another perspective of quality assurance was presented by Sid Bourke and Neville Schofield – (University of Newcastle, Australia) whereby they regarded quality assurance in educational field as school improvement and effectiveness. (Woods, 1998).

Cuttance Model

The Cuttance model of 'quality assurance' has been adopted by the South Australian DECS for state schools as a research framework for a study conducted to investigate the:

1- quality assurance process as practiced in state schools in Austriala
2- reactions of teachers, students and parents
3- perceived effects on student learning outcomes

This study used qualitative interpretive approach where members of the school interpreted and explained their feelings, actions, and conclusions concerning their experience (Woods 1986, Strauss 1987, leCompte, et al.1992, Lancy 1993, Burns 1994). The case study adopted a methodology that allowed the researchers to indicate the effects of quality assurance process on the work of the school.

The research investigated random samples of 158 schools which were applying the QAF for two years. Primary schools were mostly chosen because they were considered to be less complex than secondary schools.

The results of this research would account at first hand the perceptions of teachers, students and parents of how quality assurance measures have been introduced into schools and what the effects have been. It would provide a clearer understanding of how schools and their communities define for themselves their core business, its implications for classroom practice and their criteria for success. The new knowledge and insights would form a basis for future research. Unfortunately the results were not published (woods,1998).

School effectiveness indicators:

In their framework of quality assurance Sid Bourke and Neville Schofield presented a study concerning school effectiveness. This study stated new criteria for measuring school effectiveness where effectiveness was directly related to school improvement. This new criteria altered the traditional effectiveness measures that were concerned with student's scholastic achievements in basic skills or materials. The model considered student quality of life and consistent school attendance as the criteria of school effectiveness and improvement. In their argument to defend this model, Bourke and Schofield mentioned that schooling is an essential part of children's life since they spend a similar number of hours each day at school as were spent at work by the work force.

Therefore, quality of school life signifies the same importance of quality in adult life and will potentially ensure high student quality of life and affective outcomes in the context of school reform.

Attendance and nonattendance:

Authors of the paper suggested that class room environment was the workplace for students; therefore student attendance can be considered as an indicator of student status and quality of school life. The attendance indicator took its importance from the fact that any efforts provided by the school for its students were of minor value if students weren't present to take advantage of these efforts. Furthermore, students who didn't attend regularly have a great risk of failing. There existed many reasons behind school absenteeism, many of which were within the control of schools. Miller (1995) conducted a study of 150 secondary schools in England; the results revealed that students drop classes due to disability to perform certain work, and dislike of certain lessons or even teachers rather than home background. He concluded that providing a comfortable environment, continuous assessment of student abilities, reducing stress and anxiety were of major importance in the academic process.

Quality of School Life:

Several authors such as (Burt, Wiley, Minor & Murray 1978, Hart & Conn 1996),(Pelsma, Richard, Harrington & Burry, 1989) defined quality of school life as the outcome of series of positive or negative events and experiences related to the school life. Stress and satisfaction (positive or negative affects) were considered as principle indicators of the level of quality of school life for students and teachers.

Since people who usually control the environment of school life are educators and administrators, thus they have a great responsibility in creating positive affects to students. Many studies (Goodlad, 1984; Gray eh al, 1983; Leonard, Bourke and Schofield, 2000) showed that students were more interested in academic achievements if they had positive perspectives of the quality of their school life. Students indicating negative feeling regarding the quality of their school life were more likely to have negative perceptions regarding their relationship with their teachers, peers, success at school and future usefulness of their schooling. Further studies have suggested that the learning environment itself is an important indicator of the quality of school life since students are strongly affected by the environment in which they are embedded (Moos, 1991). Below is stated what constitutes the effects of the nature of the learning environment and quality of school life.

School Effects:
a) School effects were stronger on attitudes than achievement (Cuttance, 1992).
b) Student enrollment in decision making at schools enhance their perceptions of quality of school life and optimism about future aspects (HREOC, 2000).
c) Institutional related factors, such as level of resources, and quality of facilities affected student quality of school life (Smith & Tomlinson, 1989).

Classroom Effects:
a) Student perceptions of their actual classroom environments were significantly below their preferred ratings (Bruck et al,2001)

b) Supportive relationships between students and teachers prompted an effective classroom climate, commitment, student motivation, morale and sense of achievements. Satisfaction and effectiveness were also identified as being positively affected by clear expectations, adequate feedback, and well instructed learning environments. (Moos, 1991). (Reference: Affective Outcomes In the Context of School Reform

VII- Accreditation process: a quest for quality

Accreditation is a public recognition that an educational institution has a sound financial basis, qualified instructors, bona fide programs of study, sufficient facilities and equipment, appropriate student service policies and procedures, and meets all of the claims that are made in their public relations materials. Without accreditation by the appropriate agency, students might not have access to financial aid, the institution may not qualify for grants and there will be a halt to any government funding received. Most institutions rely upon regional accreditation organizations for their accreditation status. Since virtually all accreditation bodies require evidence of regular assessment processes these requirements should be well thought out when accreditation is contemplated rather than after it has begun.

The regional accreditation processes actually unify the standards and guidelines for quality performance in education. The school aiming at joining an accreditation body should undergo a thorough self study process to identify any variances from the prescribed guidelines and conduct necessary actions to meet the set of requirements in the guidelines. The core of this process resembles the review process emphasized in the ISO model of total quality management. A major difference between the two models is the role of the external audit which is a less structured and authoritative approach in the accreditation process than in the ISO model (Karlen, Janice M, 2007).

VIII- Specific Quality Measures

Some studies emphasized quality measures on specific domains in the school systems such as the teaching process, curriculum, and assessment-etc.

Quality of the learning and teaching process

In their aim to compare the quality of education in four European countries: England, Belgium, Germany, and the Netherlands, a group of researchers reviewed the research literature on the basic characteristics of good and effective teaching. The purpose was to select standards and indicators for the observation instrument which they used to evaluate the quality of learning and teaching in primary schools (purpose of the study).

The researchers assigned five aspects as indicators of the quality of teaching: efficient classroom management, safe and stimulating learning climate, clear instructions, adaptation of teaching, and teaching – learning strategies(Van de Grift, W, 2007).

1. **Efficient classroom management:** Many researchers considered the amount of time spend in learning as an indicator of learning effectiveness. Bloom (1976), Carroll (1963), Harnischfeger and Wiley (1978); stated methods to make the best

use of classroom time, such as starting and ending lessons on time, reducing transition time, minimizing waste time and spending more time on explicit instructions of skills and integration of skills. . Several instruments for observing efficient use of time revealed that the average teacher in primary education spent 43% of lesson time on instructions, 50% working on assignments and 7% on management and organization. Effective teachers spend 15% less on management and organization and 50% more time on instruction and interactive activities, such as questioning and answering, and providing corrective feedback or explanations. Another highly important factor in the use of time is the balance of activities. Effective teachers organize their time such that they can spend at least some time with the total group, in small groups and with individuals.

2. **Safe and stimulating learning climate:** In studies covering over 16 primary schools, researches such as Schweitzer (1984) and Vermeulen (1988) found that a good and safe climate affected student's achievements positively in an average correlation of 0.42.Several other studies have showed high relation between the learning environment and the achievements carried out by students where 20% to 40% difference in student's achievements were due to school climate factors. Researchers have not provided a clear definition of school or classroom climate; yet several factors favoring a stimulating and comfortable climate were reported: self-confidence through positive expectations by teachers, emphasis on basic skills, an achievement-oriented attitude, self-regulating learning, and an intellectually challenging teaching climate.

3. **Clear instructions:** For the learning process to be effective and of high quality, every element related to this process should be clear to the recipients of this process. Instructing a classroom in a clear and understandable way can be done through:
Clear objectives: using clear and simple language to specify the objectives of the lesson to students.
Well-structured lessons: a lesson being well structured in the terms of explanations, examples and activities have a great effect on student's achievement.
Activating students: encouraging class discussions and integrating students in the teaching process showed positive progress in student's achievements.

4. **Direct instruction:** Rosenshine (1979) considered that effective teachers interact with their students through integrating "instructional sequence" called direct instruction into their lessons. Direct instruction proceeded as follows
- Begin the lesson with a short statement of goals
- Review previous learning
- Present new material in small steps
- Allow students practice time after each step
- Give clear and detailed instructions
- Provide active and full practice
- Ask questions and make sure that all the students understood.
The "direct instruction model" has been proven effective, especially for young children and children with less academic abilities (Muijs & Reynolds, 2003; Houtveen et al, 2004; Houtveen & van de Grift, 2006)

5. Adaptive teaching: Studies have showed low positive and high negative relationships between exam results and classes with mixed- ability groups. Students with low abilities required higher instruction and learning time. This fact necessitated proper organization where low abilities students acquired proper knowledge and the rest of the class benefited from time by managing their own learning process. Houtveen (2004) and Van de Grift (2006) using quasi- experiments found that results in students achievements increased when teachers differentiated in tests and examinations between students with academic problems and the rest of the class.

6.Teaching-Learning strategies: Teachers who explicitly model, scaffold, explain strategies, give corrective feedback, and ensure that children master the material taught contributed highly to the academic success of their pupils (Evertson et al, 1980).Engaged learning time varies from classroom to classroom. There is evidence that teachers can influence pupils' engaged learning time by avoiding excessive seatwork and by making lessons more interactive. The teaching learning strategies delivered by teachers affected the degree of pupil engagement, which is of major concern in any instructional activity (kindsvatter et al, 1988).

The study concluded that the above-described indicators were positively and significantly related with "pupils involvement," 'attitude and behavior", and "attainment."

Curriculum planning and implementation

The introduction of Performance Indicators in 2002, in Hong Kong preschools, signaled a shift from a laissez-faire approach to the centralization-decentralization dichotomy. The imposition of an externally validated model was a strategic move to increase the government's control of standards (Hopkins et al., 1994).

In order to extend the practices of primary and secondary schools and to enhance the quality culture of preschool education, the Education and Manpower Bureau in Hongkong published the Performance Indicators for preschools as a reference guide for self-evaluation and external evaluation in 2000. It comprised four domains: management and organization, learning and teaching, support for children and school ethos, and child development. School performance was graded at four levels, namely unsatisfactory, acceptable, good, and excellent.

As advised in the Performance Indicators, children's portfolios, including records on children's activities, developmental checklists, observation records and children's work, were used as part of the evidence of performance in the four domains. The preschool in this case study had to initiate a new system of portfolio assessment. The preschool planned to replace standardized tests with individual assessment by portfolio in order to document and chart children's all-around development profile.

The study concluded that the imposition of Performance Indicators on preschools in HongKong required curricular changes ranging from simple procedural changes to in-depth changes in values and beliefs about teaching and learning in classroom. In

terms of professional relationships, teachers may have to move from isolated to collaborative professionalism. In terms of school management, preschool heads may be changing from centralized bureaucratic leadership to decentralized and transformational leadership. Further more the organizational culture of schools may be shifting from a top-down hierarchal management model to bottom-up collaborative model. These results confirm the seventeen quality characteristics stated by Leo Bradely and were mentioned in previous section of this paper.

Teachers' Quality

Para-Teacher Scheme and Quality Education for All in India
The quality of education is determined by a variety of factors within and outside the education system, but, teacher and teaching-learning process in classroom plays a crucial role.

The Indian Government had pursued a five fold strategy in 1990s to improve the quality of education in general, and that of basic education in particular. This strategy included the improvement in the provision of the infrastructure and human resources for primary education; provision of improved curriculum and teaching learning material; improvement in the quality of teaching learning process through the introduction of child centered pedagogy; attention to teacher capacity building; and increased focus on specification and measurement of learners' achievement levels. The teacher was identified as the single most important factor influencing the quality of education by the Indian Education Commission and the National Policy on Education(Pandey, S. , 2006).

Teachers and the quality of their teaching have been given high priority and importance in this context. One of the major objectives of DPEP, which popularized the scheme of para teachers, had been ensuring the quality of education. However, by adopting under qualified and untrained teachers, this objective was seriously neglected at the very onset of the scheme of DPEP.

The study found that the class room transactions of these teachers remained dull and ineffective. In the race to improve the literacy percentage, the quality issue has been seriously compromised and state governments put forth various arguments to justify appointment of para teachers ignoring all the concerns expressed by various committees from time to time and suggestions of researches findings. *There are no concessions on teacher quality, even where teacher shortages exist".*

Quality Assessment

In relevance with the issue of applying quality management principles to education, a study was conducted at the Mid-Atlantic A&M Baccalaureate College

The purpose of this study was to indicate the reactions, feelings and perceptions of one institution internal stakeholders after the application of quality assessment principles to improve educational quality.

The institution was planning to more proactively undertake quality and outcome assessment initiatives organization wide, for the first time. Twelve of the 285 employees of the institution were taken to participate in the study.

Trying to define the concept of quality and assessment outcomes presented at the Mid-Atlantic institute, researchers found that there was little documented evidence of quality and outcomes assessment activities. They could not find forms to fill out, or collective assessment processes, or even guidelines to follow. Only a moderate number of administrative documents, memorandums, and quality manuals were available.

Since the type of research was descriptive, and aimed at answering questions about individual perceptions, data were collected mainly through interviews. Participants were asked questions concerning quality and assessment such as "how will the introduction of quality and assessment influence the goals, mission and vision of the college? How far are college administrations prepared for the implementation of quality and assessment principles? Who are the main factors that will be influenced by the new quality system?

Other documents were also reviewed such as the college's strategic plan, curriculum reports, institutional reports and other documents presented at the college's library.

The results of the study revealed that faculty members and administrators both believed that there existed value and importance in the application of quality systems, yet resistance emerged to this approach. This resistance was explained in two dimensions. Faculty's resistance was due to their misunderstanding of the goals of quality and assessment principles and their influence on the institution's mission. Administration's resistance was because they believed quality and assessment activities were already taking place and any efforts to make a change were unnecessary.

It appeared that the implementation of quality systems that assisted the teaching/learning process had a noticeable negative effect on the institution's members especially the faculty. As stated by the participants, the quality concept did not comply with college mission. Though quality and assessment principles were faced by resistance, researchers concluded that through a unified and well communicated mission, and top administration support, stakeholders would trust and engage in the process of the implementation of quality and assessment principles (Koslowski, Fred A, 2007).

In order to make the concepts and perspectives of quality and assessment principles more culturally accepted, researchers noted that:
1. The administration was responsible for dealing with resistance and preparing the college community to be flexible for changes while preserving its expectations, mission and goals.
2. The administration must work on building a system that serves the organization's benefits and where self- interest is not dominant especially toward old teachers whose resistance was the most sound. (Senge, 1990).

IX - Discussion and Concluding remarks

The term quality is ever evolving. What was quality in the past is not quality today and what is quality today will not suffice as quality in the future. What remain constant in the definition, however, is the basic requirement of meeting the needs and thus satisfying the

needs of beneficiaries of the school, and continuous improvement. Beneficiaries of the school system are the students, the parents or guardians of the students, and the community that the school serves.

While many educational researchers found the importance of applying total quality management principles to education, others opposed this approach by finding it inappropriate to apply corporate management styles to educational institutions, supported by the fact that education has to do with teaching, learning, and knowledge; it is not important to focus on managerial support activities (Brinbaum, 1988, 2000).

Nevertheless, what education has long needed is a tangible definition of how to measure the schools' educational program. Terminology and movements such as excellence, reform, or improvement have been dependent on arbitrary measures of indicators such as norm- referenced test scores, attendance percentages, dropout rates, or similar methods that are controversial. This is rightfully so because they are narrow instruments when compared to the broad scope of educational aims. They fail to significantly measure the effects of demographic, psychological, and sociological factors that are beyond the control of the school system. However, measuring indicators such as client judgment and improvement variances, suggested by TQM, is within the control of the school. Therefore, school quality is within the control of the school, and offers considerable promise as a management evaluation tool.

Total quality management principles first emerged to serve industrial domains where the needs for quality control systems were significant in order to deliver superior products and services, especially in the existing competition. At the same time, new competition from professionals increased the demand for measurable productivity in educational institutions. Higher education scholars such as (Astin, 1991; Bonvilian & Dennis, 1995) raised the issue of the importance of applying quality and assessment principles to educational organizations.

So the pertinent question is not whether schools need to go to learn about quality indicators, but how? Specifically, education needs to distinguish those quality practices in the manufacturing and service industries that can be adapted to education, and those that cannot. Then education must devise ways to implement and measure the practices that apply. Those practices will suffice as the quality indicators that schools should develop methods and instruments to consciously measure them; to keep the momentum of continuous improvement.

Appendix

Terms and definitions in educational organizations

- Customer: organization or person that receives a product. Customer can be a consumer (learner), client (person funding the learner), end-user (person or organization that benefits from the learner).
- Interested party: person or group having interest in the organization. Interested party could be a customer, parents, associations, and other educational organizations.
- Educational process: process resulting in educational product.
- Educational product: product concerned with education.
- Educational organizations: organizations that provide educational products.
    Education provider: person delivering an education product to learners.

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