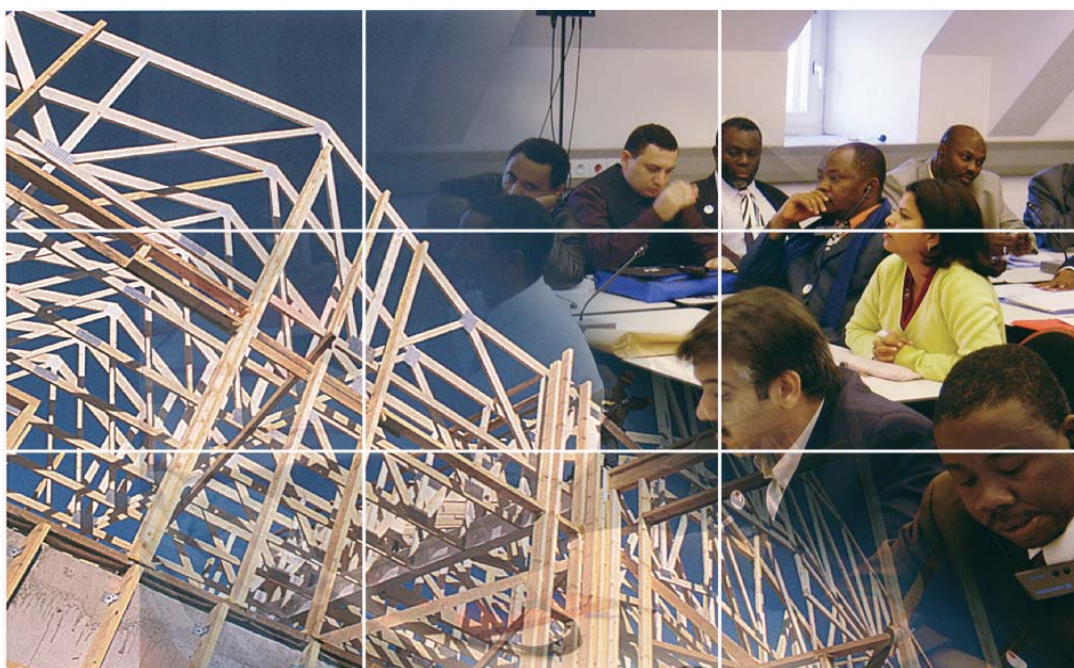


Module

Supervision: a key component of a quality monitoring system



..... SUPERVISION: A KEY COMPONENT OF A QUALITY MONITORING SYSTEM

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Introduction

One of the main roles of any school supervision system is to monitor the quality of education, i.e. of schools and teachers. This monitoring is expected to have a positive impact on their quality. As such, supervision forms part of an overall quality monitoring and improvement system, which includes other devices such as examinations and achievement tests, and self-assessment practices by school and teachers.

During the last two decades, there has been a renewed interest in supervision and monitoring of the quality of education. The appearance of 'league tables' on schools and the media attention given to international comparative studies on student results are the most visible aspects of this interest, which at times risks becoming an obsession. Everywhere, policy documents stress the need for greater accountability, quality control, quality assurance, total quality management, quality development, quality monitoring etc., and one can find abundant literature, including specialized periodicals, on these topics.

Although some distinction can be made between the different terms mentioned above, they more or less cover the same reality. In this module, the general term of 'quality monitoring' will be used. Much attention will be given to the different interpretations of this concept, which lead to quite different supervision systems.



What this module will discuss


This module will first examine the different reasons for the growing interest of governments in supervision and quality monitoring, and propose an operational definition of supervision services.

This will be followed by a discussion of the role of different supervision devices within an overall system of monitoring. A definition of monitoring will be proposed, accompanied by a more detailed discussion of the different components of a monitoring process.

In a third part, different types of quality monitoring will be considered. A first distinction will be made on the basis of the focus of the monitoring process (does it examine mainly inputs, processes, or outputs?); a second distinction refers to the main actors involved in monitoring, which can be the public administration, the professionals or the consumers, i.e. the parents and the community.

In the fourth section the module identifies a number of basic policy questions that are particularly important in developing more effective supervision services.

Those who are interested to learn more about educational quality will find in *Appendix 1* a conceptual clarification, a discussion about major lessons to be learned from research and a framework for analyzing school functioning.



Expected outcomes

At the end of this module, participants should be able to:

- explain the different reasons for the renewed interest in quality monitoring;
- present and discuss a definition of ‘quality monitoring’; and
- distinguish between different types of ‘quality monitoring’ and
- discuss the assets and limits of each type.



A renewed interest in supervision: the reasons why

Supervision has been a neglected area of education management for a long time. During the 1970s, the word 'inspector' or even 'supervisor' had a negative connotation and even became a taboo term in some countries. Inspection was seen as an old fashioned non-democratic institution and a few countries got rid not only of the terminology, but also of the supervision service itself.

Even today, it is symptomatic that most countries do not publish any data or statistics on supervision and support services. Not only do they not publish them; they are often simply not available. Even more serious is the fact that most ministries are not able to answer an apparently simple question such as: How much is being spent on the provision of supervision and support services? This is an important question if countries are interested in spotting critical (and probably small) investments that could have a proportionally important impact on school efficiency.

Nevertheless, since the beginning of the 1990s, there has undoubtedly been renewed worldwide interest in issues of quality and therefore in quality monitoring and supervision. Some countries that had dismantled their supervision services earlier have re-established them (such as the Philippines), while others that did not have them in the past have created them (such as China and Sweden). More importantly, the number of countries that initiate a process of reorganizing and strengthening supervision services is increasing every year.

There are several reasons for the renewed interest in supervision and quality monitoring, four of which are mentioned hereafter:

- In most countries, there is a feeling that the rapid expansion, if not mass production, of education has led to the deterioration of quality. Consequently, quality improvement has become a top priority of policy makers, which has in turn reinforced their preoccupation with quality control. This policy interest in quality improvement was endorsed and amplified by the EFA World Conferences of 1990 and 2000.
- More recently, the 'value for money' syndrome that permeates all sectors of society has also hit the education system. This is linked to a stronger demand for accountability in the public service. In this way, the traditional concern for quality and effectiveness has become a concern for efficiency, thereby still increasing the claim for strong control mechanisms.¹
- At the same time, various studies have shown that one important determinant of the deterioration of the quality of schools precisely relates to the weakening of quality monitoring devices, including the professional supervision and support services. This explains why some countries that had dismantled their inspectorate services in the 1970s have re-established them and also why the general interest in efficient supervision procedures has been increasing.
- Finally, the interest in supervision and quality control finds an additional justification in the present trend towards school autonomy. Teachers themselves, once in the classroom, have always had a significant level of autonomy. But recently, in many countries around the world, schools have been receiving more freedom in making decisions in fields as crucial as the curriculum, staff management and budget. This greater degree of freedom left

¹ Effectiveness concerns whether the school produces the results expected. Efficiency concerns whether the schools produces the results expected at the minimum cost (comparing outputs to inputs).

to schools has provoked an equally greater demand for accountability at school level and for monitoring procedures that should allow central governments to guarantee standards of quality and equity across the system.

An operational definition of supervision services

In most countries, supervision services have a long history. Many European countries set up their supervision systems, generally known as the inspectorate, in the nineteenth century. In England, Her Majesty's Inspectorate (HMI) was founded in 1834 and became a model for quite a number of developing countries. Similarly, the inspection system of France, whose origin goes back even further, to the Napoleonic era, has been copied by several of its former colonies.

However, since then many changes have occurred and in all countries supervision services, throughout their long history, have become complex and intricate systems, using different terminologies and playing different roles. It might be useful therefore at the beginning of these training modules to identify an operational definition in order to provide the analysis and discussion with a focus and clear boundaries.

For the purpose of our analysis, the term 'supervision services' should be understood as covering all those services whose main function is (1) to inspect, control, evaluate; and/or (2) advise, assist and support school heads and teachers. Accordingly, the main focus of the modules will be on external supervision, that is to say on the work of inspectors, supervisors, advisers, counsellors, co-ordinators, facilitators, etc. located outside the school, at local, regional or central levels.

Common characteristics of all these officers are that:

- their explicit role is to control and/or support;
- they are located outside the school; and
- regular visits of schools are an essential part of their mandate.

However, during recent years many countries, in their attempts to reform and innovate supervision, have increasingly relied on internal mechanisms of supervision by devolving responsibilities of control and support to actors at the school-site level (principals, teachers, community members or even students). Such mechanisms, which include the creation of resource centres and school clusters, the establishment of a system of master teachers, peer reviewing, different practices of self-assessment etc., are supposed to complement if not, in certain radical cases, to replace external supervision services. This is why internal supervision devices will also be considered and analyzed in these modules, particularly when it comes to discussion of different reform strategies.

Task 1

Using the above definition, identify within your own country the different actors who belong to the external supervision process and those belonging to the internal supervision process.

Completing the task: some hints

To be considered an external supervision actor, the actor must:

- have a mission clearly focused on control over or support to schools and teachers; and
- exercise that mandate through regular visits to schools.

Such a definition excludes, for instance, personnel working in teacher training institutions or curriculum development officers, who seldom visit schools. Staff who regularly visit schools, but only to collect data, are also excluded.

Several actors can play a role in internal school supervision. They include the principal, the heads of department, the Parent Teacher Association, a school board. In many cases, though, their role is still very informal and sometimes not recognized. You need to decide to what extent they are important within your own country.

Many countries are experimenting with developing supervision devices that are closer to schools than the classic supervision service, through for example the creation of school clusters. Again, you need to decide to what extent this is the case in your country.

From a strategic point of view, it is crucial to keep a holistic perspective and to make sure that the different mechanisms of supervision, old and new, internal and external, form a coherent entity that is explicitly directed at improving pedagogical practices in the classroom. Experience has shown that when teachers feel that control and support efforts all converge on the improvement of their classroom performance and when they are active partners in their own professional development, such efforts have the greatest chances of success.



What is quality monitoring?

This last observation actually extends beyond the supervision services as such and invites us to broaden our perspective. Indeed, supervision is only one component, be it an important one, of a more general monitoring system that includes other devices such as: national testing and examination systems; the establishment of a national curriculum framework; the system of teacher pre-service and in-service training, etc. It is through a combination of all these mechanisms that governments at national, regional or local levels can influence what is going on in schools and make sure that standards of quality are being kept within their education systems.

From a policy point of view, therefore, a discussion about reforming supervision cannot take place in isolation, but must rather be situated within the perspective of improving the education quality monitoring system as a whole.

But what do we understand by monitoring, what are its different components and what can we learn about the way in which different monitoring systems relate to supervision practices?

A. A definition of monitoring



Question

Draft your own definition of monitoring. Compare it with what follows.

Monitoring can be defined as an internal management process of continuous control of inputs, processes and outputs in order to identify strengths and weaknesses, formulate practical proposals for action to be taken and take the necessary steps to reach the expected results.

Important aspects of this definition are:

1. monitoring is *part of management*, not something added from outside;
2. it is a *continuous process*, not a one-shot operation;
3. it has to do with *identifying strengths and weaknesses* and *making proposals* for action;
4. monitoring is *result-oriented* – it implies a clear, measurable definition of expected results;
5. monitoring does not stop with making proposals – it also involves *taking action* in order to solve problems and to reach objectives.

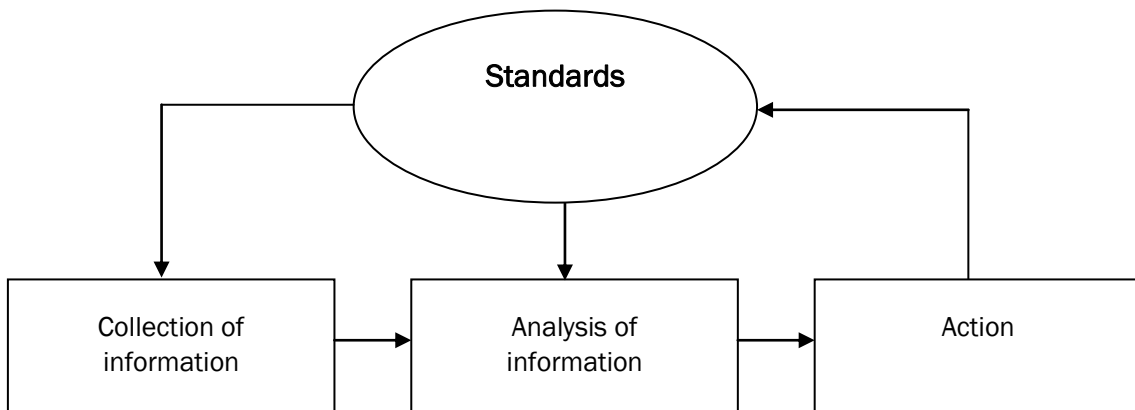
B. Essential components

From a pragmatic point of view, monitoring and consequently also supervision involves three essential activities which are (see *Graph 1*):

- collection of information;
- information analysis; and
- action.

These activities are guided by a set of standards on what is considered ‘quality’.

Graph 1. Monitoring process



(i) Collection of information

Monitoring the quality of education can only be done on the basis of solid information. Such information can come from different sources, among which the most common are:

- the regular school census;
- examination and test results;
- inspectors’ reports; and
- research/evaluation reports.

Collection of information can be without limits and monitoring can get lost in too much data. The guiding principle for deciding which data to collect is their usefulness for the analysis. Only data that will enter into the analysis should be gathered.



Task 2

Different sources provide information about different aspects of school quality. Drawing on the distinction traditionally made between inputs, processes and outputs, how much information do we get about these different aspects from the different sources mentioned?

Completing the task: some hints

The following table contains, in its columns, five main sources of data on the functioning of schools and on which a monitoring process could rely. There are few countries, however, where all five are available and even less where they are used for monitoring. The most popular ones are the first three: the statistical database; the results of exams and tests; and the supervision reports.

The rows indicate the type of information on which these sources focus: is it more concerned with inputs, processes or outputs? Is it more quantitative or qualitative in nature? It is clear, for instance, that statistical data are more concerned with quantitative information and that exams focus especially on outputs.

It will become clear when looking at the type of information provided by each source that a good monitoring system relies on a combination of different sources.

	Regular Statistics	Exams & tests	Supervision reports	School self-evaluation	Research valuation
Inputs					
Process					
Outputs					
Quantitative					
Qualitative					

(ii) Information analysis

Data must be analyzed in order to detect achievements and problems and to propose appropriate action to be taken. This implies the selection and construction of reliable indicators that should allow the manager to detect achievements and problems relating to inputs, processes and outputs in an objective and consistent way. It also implies the definition and use of clear reference points or standards for making judgements. Indicators and standards are therefore intimately linked.

Indicators are the result of empirical observation; they are indications/measurements of what happens in reality.

Standards are used as reference points, points of comparison, yardsticks, to make judgements about indicators.

Reference points can consist of:

- pre-established norms, such as norms about class size or teacher qualifications;
- average levels of attainment, such as the national enrolment rate or national achievement score in mathematics;
- policy objectives or expected results, such as less than 5 per cent repetition rate in grade 1.

(iii) Action

Action can be preventive, corrective or reinforcement-oriented. As mentioned earlier, action is an essential component of monitoring. Data collection and analysis without action can be meaningful from a research point of view, but is a sterile exercise from a management perspective.

Action can take the form of:

- **structural measures:** Different reform measures relating to the improvement and transformation of the system. One can think, for instance, of a change in the recruitment procedures of a school principal or the setting up of a committee that includes supervisors and teacher trainers to ensure stronger collaboration between these two groups.
- **personnel-related measures.** These can be either sanctions or support. **Sanctions** can be positive (incentives), such as promotion, more school resources; or negative (punishments), such as an official reprimand or dismissal. **Support and advice** can be given through the interventions of pedagogical advisors, in-service training, resource centres, etc.

Different monitoring systems and the role of supervision

Monitoring is concerned with quality. Unfortunately, there is no standard definition of quality. Quality is a multi-dimensional concept composed of three interrelated dimensions: the quality of the human and material resources available (inputs); the quality of the management and teaching-learning processes taking place (processes); and the quality of the results obtained (outputs).

Those who are interested to learn more about quality can turn to Appendix 1. The appendix discusses in further detail the concept of quality and the lessons learned from research relating to determinants of quality. It also presents a conceptual framework for analysing school functioning together with the major findings of an international research project carried out by the IIEP on the “Quality of primary schools in different development contexts”.

While monitoring systems have been influenced by the results of research, one cannot say that this influence has been fully satisfactory. For example, several studies have forcefully demonstrated that regardless of the actions being taken at systems level, real quality improvement depends on what is actually happening in the classroom. Schools are the delivery points at which all the inputs of the system come together for interaction and determine the quality of the teaching-learning process. This is why in a growing number of countries quality-monitoring strategies are paying special attention to the functioning of schools. However, this is far from the case everywhere and in many instances ministries go on concentrating on system inputs rather than on school processes. An analysis of different monitoring approaches according to their main focus will help in clarifying this issue.

As is the case for supervision, countries have built over time more or less complex monitoring systems that differ according to their main focus or area of concentration and also according to the main locus or body in charge.

In the section below, we shall present two typologies developed on the basis of the two main variables identified above. It should be borne in mind that a typology of this kind does not provide us with a description of reality, but rather gives us a useful analytical framework through which the organization and functioning of existing monitoring systems can be more easily analyzed and better understood.

(i) Typology by main focus

This typology² classifies monitoring systems according to the dimension of the quality concept on which each of them is mainly focusing: inputs, processes or results.

1. Compliance monitoring

A first type of monitoring places the emphasis mainly on *school inputs* (number of required textbooks per pupil, teacher qualifications, number of pupils per class, etc.).

It has been called compliance monitoring as its first goal is to make sure that schools comply with predetermined norms fixed by law and administrative rules and regulations.

Compliance monitoring is the oldest, bureaucratic type of monitoring: checking that rules and regulations are respected. The classic inspectorate system combined with several forms of administrative self-reporting by schools (filling out forms!) is the main device on which this type of monitoring relies. In spite of the many changes that have occurred in supervision and for reasons that will be discussed in later modules, regulatory compliance still remains the dominant mode of monitoring in many countries.

2. Diagnostic monitoring

The goal of this type of monitoring is to ensure that pupils learn what they are supposed to learn. The focus is on the *instructional process*, on what happens in the classroom. The techniques proposed at classroom level are those of mastery learning: setting clear learning objectives, regular diagnostic testing of the learners and systematic remediation.

Diagnostic monitoring is in the first instance the responsibility of the individual teacher. For the external supervision services it implies a radical shift in emphasis from administrative control to pedagogical support and advice. The main devices of this type of monitoring are indeed continuous self-assessment at school level combined with intensive external support services.

Diagnostic monitoring and mastery learning were very popular towards the end of the 1960s and during the 1970s, and led in many instances to fundamental changes in the classic supervision structures. One well-known example is the *Escuela Nueva* (the 'New School') in Colombia. Today there is a general consensus that process variables are more important than input variables in explaining differences in school quality. Consequently, many reforms aim at entering into the black box of what happens in the classroom, which has given the diagnostic monitoring approach a new impetus (such as the recent creation of special groups of advisory teachers in many countries).

3. Performance monitoring

The emphasis of this type of monitoring is on *school results*. Its goal is mainly to stimulate competition between schools in order to promote academic achievement.

The most common monitoring devices used are the regular measurement of learner achievement by standardized tests and examinations, combined with the publication of league tables and systematic (external) auditing of schools.

Performance monitoring spread rapidly towards the end of the 1980s and during the 1990s. It is linked to the school-based management movement that inspired some of

² Source: Richards, 1988.

the most radical education reforms (including reforms of supervision) in England, New Zealand, Australia among other countries.



Question

Can you summarize what you see as the main differences between these three types of monitoring?

The following table summarizes the main differences between the three types of monitoring.

Table 1. Typology of monitoring systems by focus

Characteristic	Type		
	Compliance	Diagnostic	Performance
Theoretical reference	Bureaucratic organization theory	Pedagogical theory	Market competition theory
Goal	Ensure standardized formal quality	Ensure efficient learning	Promote academic achievement
Focus	Inputs	Teaching-learning processes	Academic achievement
Key monitoring device	Inspectorate & self-reporting	Advisory services & self-assessment	Standardized testing & league tables

Most education systems will rely mainly on one approach. However, the three types of monitoring often co-exist within the same system, even if their theoretical reference and rationale are quite different. This may lead to conflicts between different stakeholders and to serious discrepancies between the official theory and the practice of monitoring.

(ii) Typology by main locus

This way of classifying monitoring systems concentrates on where the main locus of responsibility is for the quality improvement of schools. It is based on the classical distinction between three different types of accountability³, which are (1) contractual accountability: being answerable to one's employers or political powerholders; (2) professional accountability: being responsible to oneself and one's colleagues; and (3) public accountability: being answerable to the public or the clients.

Kogan⁴, elaborating on these models of accountability, distinguishes between the following types of monitoring:

1. Public or state control model

This is the dominant mode of education monitoring in most countries. Its main characteristic is that of a formal bureaucratic hierarchy: teachers are controlled by school heads, who are controlled by district officers, who are controlled by central ministries that in turn are directed by elected representatives.

This monitoring system has democratic legitimacy because of the control chain that emanates from the political level. In this model, external forms of quality monitoring will prevail over internal ones, and the traditional inspection system, which can be more or less decentralized, will play a key role.

The key problem with this model is that the influence on decisions by those who have to implement them (local school actors) is generally low.

2. The professional accountability model

The professional model can be seen as an answer to the above-mentioned problem. In this model, the main focus of monitoring is not with the bureaucracy but with the professional community; in our case, the teaching staff. They are supposed to be the best judges of how to ensure quality education.

Two main arguments are generally put forward by the promoters of this model. The first is that the stronger the professional autonomy of teachers and schools, the more responsive they will be to the needs and conditions of their clients. The second is that professional accountability will protect schools against excessive external pressure, for example to boost school results.

The legitimacy of this model derives from the expertise and ethical code of the teaching profession. Its dominant procedures of monitoring will be internal ones, such as self-evaluation by teachers and peer reviewing. A country that has gone a long way in shifting towards a professional accountability system is Finland, where the external inspection system was abolished in 1991 (see *Module 7*).

One problem is that responsiveness to the clients might be gradually replaced by professional isolation and complacency, and by self-protective reactions against outside demand and criticism (from parents, the local authorities and the public at large).

³ Source: Goddard and Leask, 1992.

⁴ Source: Kogan, 1988.

3. The consumerist model

According to this model, the main actors in charge of monitoring are supposed to be the consumers or beneficiaries of the education system, i.e. the students, the parents and the wider community. Kogan distinguishes between two forms of the consumerist model.

The partnership model

The first one is based on a partnership between the parents (students) and teachers : parents should participate in a partnership and not in a relationship where the client, i.e. the parent is dependent on the professional. The accountability relationship between teachers and parents involves three components: consensus on objectives; exchange concerning methods; and discussion about the results obtained. The partnership model assumes parity between the providers of education and the clients. Internal decisions about school functioning ought to be shared.

The main legitimacy of the partnership model are the values of democratic participation. As in the previous case, the main monitoring device will be self-assessment, but self-assessment in which parents and their representatives are heavily involved.

The problem with this model is that parents are often not available, not interested or not prepared to participate, while teachers might resent 'non-professional intrusion' in their work.

The free-market model

All the previous models continue to assume that decisions will ultimately be made by office holders, appointed or elected, within a public institutional set up. The 'free-market' model intends to break away from public control and to replace it with the control of the individual consumer. The ultimate way of moving from public control to market control is to provide parents with vouchers. These should allow families to buy the education *they* want for their children and put schools in a competitive position. In that case, individual family demand would become the regulating principle for education development in replacement of public control. Reforms in this direction were introduced at the beginning of the 1990s in countries such as the UK and Chile, but in both cases without giving up the essentials of the classical state control model (see later modules).

The justifying principle behind the free-market model is that efficiency and quality can best be obtained via free-market mechanisms and competition. The main monitoring device in this model is the regular collection and dissemination of different performance indicators and the publication of league tables, often combined with the imposition from above of a well-defined curriculum framework.

Although vouchers schemes have been tried out on a limited scale in several countries, there is no empirical evidence that the underlying assumption about 'free-market' monitoring is justified. It has often been argued that schools that respond too much to market demands may well end up seeking to obtain narrowly defined measurable examination results rather than good broad-based education. Furthermore, is there such a thing as a market for schooling and choice between schools in rural, scarcely-populated areas?

Table 2: Typology of monitoring systems by locus

	Types			
Characteristics	State control model	Professional model	Partnership model	Free-market model
Locus	State bureaucracy	Teachers	Parents and teachers	Individual consumer
Legitimizing values	Representative democracy	Professional expertise and ethics	Grassroots participation	Market best regulator
Key monitoring device	Inspectorate	Professional self evaluation and peer reviewing	School-site self reviewing	Transparent performance information (league tables)

As in the case of the previous typology, it should be borne in mind that although the three models are different, they often co-exist within the same system. Given the very different – if not conflicting – values behind each model, their co-existence is not always smooth. While the original state control model (also called managerial model in its modernized version) remains the dominant one, elements of the other models have been spreading rapidly during recent years and mixed with the state control model. The school-based management movement has played an important role in this regard.



Concluding remarks

The above overview demonstrates that supervision is only one, be it an important, component of a much broader multifaceted quality monitoring system, involving different:

- types of information gathering and analysis;
- levels of monitoring (from central to school site level);
- actors (from central inspectors to teachers and parents); and
- monitoring devices (from external supervision over peer-assessment and self-assessment to the systematic dissemination of school results).

The challenge for decision-makers and planners interested in reforming supervision services is to keep a holistic view that ensures sufficient coherence between the different components of the overall monitoring system.

Some key policy questions to be answered in this respect (and to which we will come back throughout the different modules) are the following:

- What is the relative importance to be given to external supervision versus internal, school-based supervision? What will be the distribution of roles between the two?
- What is the relative emphasis to be placed on control and support activities?
- What type of school-based supervision will be adopted? What will be the respective roles played by the principal, the teachers, the parents and the local community representatives?
- To what extent will standardized testing and examinations be introduced? How will the results be used for quality monitoring purposes?

The typologies developed above have shown that the answers to these questions are not simply technical, but that each of them corresponds to a theoretical if not ideological position. Consequently, each country must work out its own supervision reform on the basis of a careful analysis of both what exists and the values and development objectives it would like to promote. No system can be transferred as such from one country to another, but many lessons can be learned from analyzing different practices and exchanging experiences. This is the basic philosophy behind these training modules and the reason why systematic reference will be made, whenever possible, to different country situations and innovations.



Lessons learned



Question:

The expected outcomes of this module were that you would understand the reasons for the renewed interest in quality monitoring, that you could define what quality monitoring implies and in particular that you would be able to analyze the differences between various types of quality monitoring on the basis of their focus or their locus (namely the main actor in charge of monitoring). Can you summarize what you have learned and compare it with what follows?

Interest in quality monitoring and therefore in supervision has increased due to four factors: the realization that quality improvement is essential in a competitive world; the demand that public services show value for money; the fact that quality deterioration can in part be explained by the ineffectiveness of monitoring services; and the growing school autonomy that is counterbalanced by more effective supervision and support.

We have defined monitoring as an internal management process of continuous control of inputs, processes and outputs in order to identify strengths and weaknesses, formulate practical proposals for action and take the necessary steps to reach the expected results. It is important to remember that monitoring includes action and is not simply limited to an identification of strengths and weaknesses.


Quality monitoring can be implemented in different ways. Two important distinctions were discussed in this module. The first one relates to the focus of monitoring:

- it can be mainly interested in school inputs and in the respect of norms and regulations – compliance monitoring;
- it can focus on the instructional process, on the improvement of what goes on in the classroom – diagnostic monitoring;
- its interest lies mainly in school results – performance monitoring.

A second distinction concerns the main actor demanding accountability from the school and therefore undertaking the monitoring:

- the education administration, which represents the Ministry, does the monitoring – public or state control model;
- the teachers themselves do the monitoring, as they are considered professionals – professional accountability model;
- the monitoring is done by the parents, in close relationship with the school – the partnership model;
- the public monitors the school through parental choice and competition between schools – the free-market model.

Appendix 1 Education quality improvement




What this appendix will discuss

This appendix starts off by very briefly discussing the concept of quality, a concept that contains many aspects that are difficult to disentangle.

It then turns to the vast body of research studies on the topic, with the simple aim of distilling from it a certain number of lessons about what works and what does not work in trying to improve the quality of schools.

The main conclusion reached is that what matters most is what happens in the school and the classroom.

Consequently, the appendix ends with the presentation of a framework that integrates the different elements that have an impact on quality and should help us understand how the quality of schools can be improved.



Expected outcomes

After reading this appendix, readers should be able to:

- understand the complexity of the concept of 'quality of education';
- identify the core lessons learnt from research on how to improve the quality of schools; and
- understand the different factors that have an impact on the quality of schools and their interrelationships.



The concept of quality

There is no standard definition of school quality. In the literature, a large variety of quality statements can be found that might refer either to inputs, or to processes, or to outputs, or to the three dimensions at the same time. Some examples of quality statements go like this:

- Relating to inputs
e.g. A good school is a school with qualified teachers and good equipment.
- Relating to processes
e.g. A good school is a school with discipline and a good teaching-learning climate.
- Relating to outputs
e.g. A good school is a school that produces above average exam results.

These three definitions of a good school have their value, but the one directly referring to results seems to be the most logical. This is the definition that users of education services (the parents) mostly refer to when they talk about a good school and one of those they might refer to when choosing a school for their children.

Most of the time, the only way of measuring results is by using learner exam scores or test performances. This is the common indicator used for making national comparisons in the quality of education between different countries and between sub-national entities and/or schools within countries.



Questions

Do you think that exam results are good indicators of the quality of schools? Do such indicators allow you to distinguish between a 'good' school and a 'bad' school?

Let us look in more detail at the use of exam results as an indicator of school quality.

- To what extent are exam results a fair reflection of the results produced by a school?

There are many other results that are not captured by exams such as the acquisition of attitudes, of values, of behavioural patterns and of practical skills and know-how. These types of results are unfortunately more difficult to measure and therefore get easily forgotten. But is a school that focuses exclusively on obtaining good results in national tests and exams necessarily a good quality school?

- How shall we judge the quality of the test results obtained?

Even if we agree to limit quality assessment to the measurement of academic achievement, can we say that a school with high achievement scores is necessarily 'better' than another with lower scores? While this may be true in absolute terms, it might not be so when we consider the value added to the learner's knowledge and skills by these two schools. For instance, it may be that the learners of the high achievement school had a strong academic level upon entering the school because they come from a high socio-economic background. This is where the notion of effectiveness comes in. An effective school is one where the average achievement of the learners is higher than expected, given the background of the learners and the context they are living in. In several countries, school effectiveness indicators have been built. They consist of calculating the difference between the schools' actual average achievement score and the score that would have been produced taking into account the students' characteristics, including the hard-to-change conditions surrounding the school. Manifestly, the value added is the result of the way in which the different human and material resources of the school have been used, which brings us back to the previous dimensions of inputs and processes.

In conclusion, the quality of education is a multi-dimensional concept composed of three inter-related dimensions: the quality of the human and material resources available (inputs); the quality of the management and teaching-learning processes taking place (processes); and the quality of the results (outputs).

The problem is that we do not know very well how the different dimensions interact with each other in reality. But we do know that, in any case, the influence of a specific input or process factor on results is never direct or linear. An increase in the number of textbooks by learner, for example, will not directly lead to an improvement of exam results. That will depend on the availability and quality of the other inputs and on the way in which the textbooks are being used, together with the other inputs, within the teaching-learning process. Furthermore, if the increase in the number of textbooks *does* lead to better exam results, this will only continue up to a certain level, after which any further increase will remain without effect or even become counterproductive. Because of this complexity in the relationships between variables, understanding which are the input and process factors we can manipulate and how we can manipulate them in order to improve the quality of our schools is not an easy task.



Some lessons from research

Fortunately, over the last three decades a growing body of research on school quality and effectiveness, both qualitative and quantitative in nature, has allowed us to understand a little more clearly the determinants of school quality. The purpose here is not to discuss the different research studies in detail, but simply to draw attention to a number of general lessons we have learned from them and that could help us to better target our quality improvement strategies.

Among the main lessons worth mentioning are the following:

- There is **no single determinant** of school results. What explains differences between schools is not one or several factors in isolation but rather the particular interaction of the material, human and organizational resources involved in the pedagogical process. An integrated approach that gives due consideration to the close inter-dependence among factors at both programme design and implementation stages is therefore needed for quality improvement programmes.
- In general, **process variables** (variables relating to school organization and practices) are more important than input variables (such as availability of material and human resources) in explaining differences in school quality. Traditional quality improvement programmes concentrating on massive injections of infrastructure, equipment, teacher training, etc. within the system have only had a limited impact. They can only produce the expected results if they are accompanied by complementary action explicitly aiming at the improvement of organizational processes and behavioural patterns at different levels within the system.
- At the heart of a good quality education is **what happens in schools**, that is to say the nature of relationships of the teaching staff with the pupils, with colleagues and with the community. Quality improvement policies should put the main emphasis on the human factor. The teachers are not only the main point of contact between the providers of educational facilities and the users (pupils and parents); they are also the essential medium through which the teaching-learning process in the classroom is achieved.
- The **role played by the headteacher** is an important element when trying to explain the differences in school quality. The functioning of a school is to a great extent determined by the way in which the education institution is being managed.

All this explains why, in many countries, quality improvement policies are today paying special attention to the functioning of the schools. It is being realized that whatever actions are taken at systems level, real quality improvement depends on what happens in the classroom. Schools are the delivery points at which all the components of the system come together for interaction and determine the quality of the teaching-learning process. Critical decisions about quality are taken daily at the school level by the teachers and the headteacher. It is only at the school level that most of the basic problems with quality (teacher and learner absenteeism, deficient use of human and material resources, poor teaching practices, etc.) can be monitored properly. This is why the school is, or is becoming, the prime target of efforts to improve the quality of education. Hence the importance of better understanding how schools are functioning.



A framework for analyzing school functioning

Graph 1 below presents a framework for analyzing school functioning. It is the result of an international project undertaken by the IIEP on the “Quality of primary school in different development contexts”⁵ and carried out with national teams in four countries: the province of Zhejiang in China; Guinea; the state of Madhya Pradesh in India; and the state of Puebla in Mexico. But other research studies implemented have reached similar conclusions.

Although the framework is quite self-explanatory, a few points of clarification might help in understanding it better and will facilitate its use:

- The basic idea behind the framework is that the central element of the school functioning is what happens in the classroom. For it is in the classroom that all inputs converge and influence the particular *teaching-learning process* taking place. The way teachers teach, the way they use their time, the extent to which they involve the learners and provide them with feedback, etc. are in the end what determines the quality of a school. The daily interaction between teachers and learners is the most direct determinant of a school’s *results*.



Question

You will note that *Graph 1* contains a series of cells that refer to input factors (the ones on the left) and to process factors (the ones in the middle). Can you identify for each factor a few elements that are of importance to school quality?

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- But what happens in the classroom is not an independent variable. It is in turn influenced by other factors, the first of which are the *input factors*:

⁵ Source: Carron and Chaû, 1996

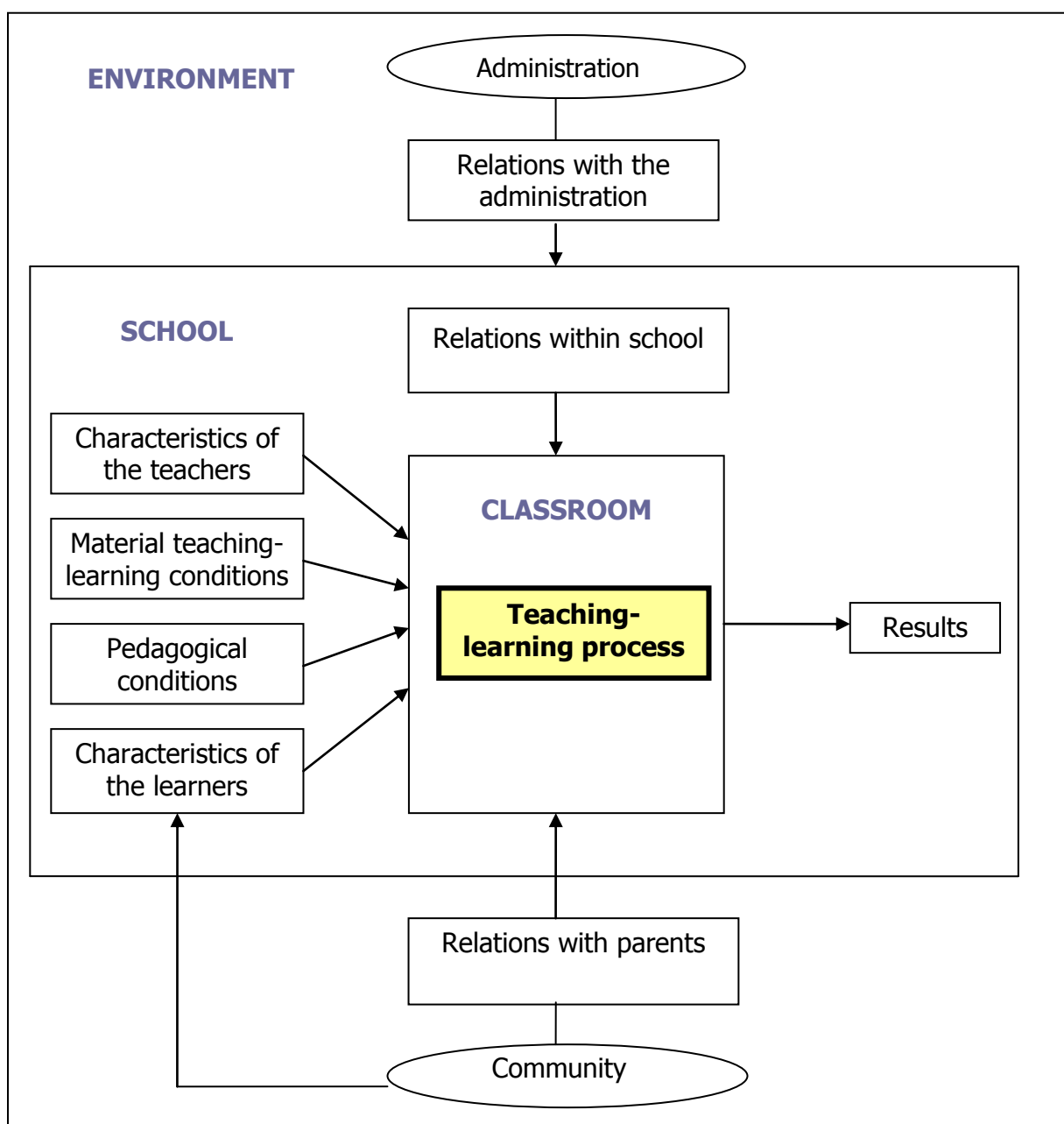
Characteristics of the teachers, that is to say, the availability and quality of the teaching staff in terms of their level of education and training, experience, competence, stability, living conditions, level of integration in the community, job satisfaction and motivation, etc.

Pedagogical teaching-learning conditions, covering the pedagogical organization of the classes (single grade or multigrade, single session or multiple sessions), the number of pupils per class, the programme being taught, the teaching language used, the time devoted to learning, etc

Material teaching-learning conditions, that is to say, the availability and quality of: school infrastructures; various types of equipment for the classroom; pupil supplies; guides and materials for the teachers, etc.

Characteristics of the learners and in particular the distribution by gender, age, health status, socio-economic background, socio-cultural background, etc.

Graph 1: A framework for analysing school functioning



- In addition to these basic input factors, the quality of the pedagogical act is even more directly influenced by certain *processes*, which include a number of interactions between the teacher and other actors intervening in school functioning. The emphasis is being put on three types of interactions, which are the following:

In-school relations: manifestly the most important element here is the role played by the head teacher. However, formal and informal relations between colleagues seem to be equally important in fostering teachers' attitudes and pedagogical behaviour.

Relations with parents: naturally, parents are supposed to be the most direct partners of the teachers in educating their children. This relationship therefore merits particular attention. It can be analyzed by examining (1) the level of communication between parents and teachers, and (2) the extent to which parents are involved in different aspects of school functioning (financial, pedagogical and managerial).

Relations with the administration: although school functioning is greatly influenced by its immediate local environment, a school is also part of an overall system. Consequently, the type of relationships that exist between the school and the education administration is also crucial. Particularly important in this respect are (1) the pedagogical control and support provided to the teachers and the head teacher in carrying out their respective tasks; (2) the extent to which they receive continuous information and clear instructions on the aims to be achieved, programmes to be taught, standards to be respected, etc.; and, finally, (3) the quality of the administrative backing on which they can count.

These three types of interactions are considered to be basic to any analysis of school functioning. However, they are not the only ones that can have an impact on school functioning. Headteachers and teachers might also have direct contacts with community leaders, representatives of other development sectors, experts of non-governmental organizations (NGOs), etc. In certain specific contexts, these relations may even become more significant, for example where a particular NGO is supporting a given school. Consequently, the framework can and should, in certain cases, be broadened to include these other relationships.

The following box is extracted from the same IIEP study on the "Quality of primary school in different development contexts" from which the framework presented above has been derived. It contains the main conclusions of the report concerning the factors that explain the differences between high-performing and low-performing schools in the four countries studied.

Box 1: What explains the difference between high-performing and low performing schools? Conclusions from four national case studies.

General conclusions are difficult to draw and there is certainly not one single factor, or a few factors in isolation, which explain differences in performance. What is important is the way in which different components that enter into the teaching-learning process interact with each other and this interaction is highly context-specific. Nevertheless, some more general conclusions summarized below can be derived from the analysis.

1. *Material conditions of teaching* are important. Manifestly, it is difficult for a school to get good results when the basics are not available. In general, therefore, a clear correlation between the average test results and different categories of schools in terms of levels of infrastructure and equipment was noticed, as illustrated in the case of Madhya Pradesh. However, it was also found that individual schools that have similar material teaching-learning conditions can have very different results. In spite of

deplorable conditions in many schools, learners do relatively well, while in other schools with good facilities, learner performance is very low. Material inputs therefore do have an impact on results, but this impact is mediated through the interaction of these inputs with other factors and, in the first instance, the human ones.

2. Indeed, differences in results are more related to the *quality of the teacher* than to the availability of equipment. But what is meant by the quality of the teacher? Here, too, the research throws some light on the subject. Competence, which is the result of training and experience, was found to be important to a certain extent. In some cases, teachers manifestly did not master the subjects they were supposed to teach. This did affect their performance in two ways. First of all, their teaching in the given subjects was poor, but in addition they tended to devote less time to the subjects in which they were not at ease. However, a more important problem of competence was the lack of pedagogical skills that, because of poor pre-service as well as in-service training, was a more widespread and more serious handicap for efficient teaching. That being said, the individual school case studies show that, in the end, teacher quality is more a question of motivation than of competence. It is motivation that determines the extent to which competence will be actually used. Classes in which the results were better than expected were invariably run by teachers who, for one reason or another, were more motivated than elsewhere. In other words, competence is an important, but not a sufficient, condition for an efficient teaching-learning process to take place.

3. Classroom observation allowed further identification of some of the characteristics of a more efficient *teaching-learning process*. They essentially have to do with the amount of learning exposure and the efficient use of learning time, that is to say, the extent to which the teaching is well structured and pursues clearly defined objectives. More precisely, the following characteristics of teacher behaviour could be observed in the better performing classes:

- the teacher is absent less often;
- he/she uses work plans and lesson preparations;
- he/she has a more active teaching style (even if the overall approach remains teacher-centred);
- he/she gives regular homework and, more importantly, he/she provides regular feedback to the learners on the basis of an individual correction; and
- he/she organizes regular assessment of knowledge and skills acquired by the learners and provides individual feedback on the results.

4. However, the teaching-learning process is not an independent variable. It is therefore important to know what factors influence it and can make it more efficient. Again, very special cases could be identified that are related to the individual characteristics of the teachers and consequently cannot be easily generalized. However, on the whole, the research showed that the chances of obtaining a more efficient teaching-learning process (along the lines described above) depend to a large extent on the availability of proper control and support structures at the school level, and on the level of interaction between the teacher and the parents. The need for proper *control and support structures* is closely related to the interactions prevailing within schools and, more specifically, to the role of the headteacher. The difference in the role played by the headteacher was considered to be one of the main reasons for the variation in results between public and private schools in Madhya Pradesh and also in Puebla. It was found that in both cases headteachers of private schools were exerting a rather tight

control over the teachers: ensuring their regular presence and that timetables were followed, work plans prepared, etc. In government schools, the situation is not the same. Some schools are very small and do not have a real headteacher. In others, headteachers are appointed but they lack the necessary authority and competence to ensure respect of minimum rules of good school functioning. In Madhya Pradesh, for example, while in private schools headteachers are themselves supported and controlled by School Management Committees, in government schools such a mechanism does not exist. On the other hand, the classical supervisory structures have deteriorated so much so that they cannot provide the headteachers with the necessary backing they need in the everyday management of their institutions. Restoring the system of school supervision and rethinking the roles and respective responsibilities, in this respect, of inspectors, headteachers and local communities from an integrated perspective is, therefore, a must for any improvement in the quality of basic education.

The other factor that emerges as an important correlative characteristic of an efficient teaching-learning process is the level of *interaction between the teachers and the parents*. It has been seen that in general, with the exception of Zhejiang, this interaction was far less intensive than expected. As a matter of fact, in many instances, and particularly in rural areas, a wide gap was noticed between these two main actors intervening in a child's education. Parents were looked upon by teachers as obstacles rather than as partners for quality improvement. However, in schools where this trend could be inverted and communication channels established, the teaching-learning processes tended to be more efficient. In Zhejiang, where the results of the pupils were found to be generally better than elsewhere, regular contacts between teachers and families (including regular home visits) were a standard feature of school functioning. Better communication between parents and teachers was also one of the main characteristics of private schools in Madhya Pradesh and Puebla. A privileged means of communication in these schools was found to be the systematic feedback to the parents of homework and test results. The important thing seems to be to get the parents involved or, at least, interested in the pedagogical aspects of their children's education, rather than to simply solicit their material and monetary contribution. In Puebla, for example, this difference in the parents/school relationship was found to be the most important one between urban and rural areas. Fortunately, there were some exceptions to this, proving that real pedagogical partnership between parents and teachers can also be established in rural schools.

School supervision services exist in nearly all countries; they have played a key role in the development of the public education system, by monitoring the quality of schools and by supporting their improvement. However, in many countries, these services are under increasingly heavy critique, because of their failure to have a positive impact on quality of teaching and learning. This failure is, in part, the result of a strategic challenge: the mandate of the service outweighs by far its resources, and is also caused by a series of poor management and planning decisions.

Against this background, many countries have attempted to reform their supervision system. These reforms are also inspired by the need to improve educational quality and by the recent trend towards more school autonomy. Indeed, the ability of schools to use their greater freedom effectively will depend to a large extent on the support services on which they can rely, while supervision may be needed to guide them in their decision-making and to monitor the use they make of their resources. While these reforms have met with mixed success, their overall analysis allows us to gain profound insight into what can be achieved in a specific context. This set of training modules takes the reader through a systematic examination of the issues that a Ministry of Education, intent on reforming its supervision service, will face.

The public, which will benefit most from these modules, are senior staff within ministries who are directly involved in the organisation, planning and management of supervision services, staff of research and training institutions who work on school supervision, and practising supervisors.

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