Monitoring the Quality of Education in Schools

Examples of Feedback into Systems from Developed and Emerging Economies

Vanessa Scherman, Roel J. Bosker and Sarah J. Howie (Eds.)

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All chapters in this book have undergone peer review.

Printed on acid-free paper

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PREFACE

Educational scientists, policy makers, school leaders, teachers, and all others working in and around education across the globe are interested in the quality of education and often grapple with issues of monitoring the quality of education in a manner that is locally relevant. The stakes are often high and the pressure to perform is ever present. This is made worse with countries competing in a global economy, and schools competing on the local education market with either numbers of enrolling students decreasing in developed or increasing in developing countries.

With this in mind, and due to a number of collaborative projects taking place which emphasise the need to be locally relevant but internationally informative, the idea of this book was born. In the book we attempt to showcase different ideas pertaining to monitoring. The chapters are intended to highlight theory and to show how the theory was applied within a certain context. This shows how theory can be innovatively applied and also highlights many similar challenges experienced in different contexts. So while the context may differ, the manner in which the challenges are addressed can be very similar in nature. It is important to state upfront that neither the editors nor the authors believe that there is one way of approaching the topic of monitoring the quality of education. We draw on theory and present the best way under the circumstance of how monitoring was addressed. We would like to challenge you, the reader, to identify the manner of monitoring that best informs your pursuits.

As is always the case with a project such as this one there are a number of people who made the production possible. We would like to thank the authors for their contributions, timeous response to the deadlines set and patience. We would also like to thank all colleagues involved in the anonymous review of the chapters. These contributions added to the quality of the chapters. We would also like to extend special thanks to Tjeerd Plomp who reviewed the whole book independent of the other reviews of the first round and provided valuable feedback for the authors and editors alike. And thanks to Estelle Botha and Conny Lenderlink for the very precise, and thus high quality, technical editing provided, and to Sonja Abels for compiling the book.

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1. THE ROLE OF MONITORING IN ENHANCING THE QUALITY OF EDUCATION

INTRODUCTION

"Nobody is against quality, so of course everyone is in favour of assuring quality", a remark made in the opening chapter of her book *Monitoring the Quality of Education* by Carol Taylor Fitz-Gibbon (1996, p. 3). The observation is to the point and more than two decades later of course still valid. As is the idea, that in order to assure quality, one has to monitor it (Willms, 1992).

Nevertheless, teachers, educators, school leaders, policy makers, and scholars have different views on what quality actually is, and which standards consequently should be used to firmly assess that quality is assured. And the same goes for the monitoring practices for either maintaining or enhancing the quality of education. In this opening chapter we therefor will first of all discuss these issues, before we continue with discussing a basic typology of quality assurance models derived from the different perspectives that one can take. Thereafter we will give a concise overview of the contents of this book and the way it is structured.

QUALITY, QUALITY ASSURANCE AND MONITORING

The term quality assurance was first used in the context of business and industry. These had clearly identifiable products or artefacts, for which it was not too difficult to assess and assure their quality (Kistan, 1999). Quality assurance started when the industry became mechanised and humans only played a small role in the assembly line. The workers did not have an influence on the final product and as a result, had less interest in the products (Gray, 1987). In order for owners of businesses to ensure the quality of their products, inspectors were introduced, whose main goal was to identify mistakes and then put mechanisms in place to ensure quality. This process, referred to as quality control mechanisms (Allais, 2009), led to assuring that quality products were being produced resulting in the term quality assurance.

In the context of education Kistan (1999) came up with an amalgamated definition of quality assurance, which seeks to combine four distinct relevant dimensions (see Figure 1).

The nice feature of the amalgamated definition is, that it combines all the intuitive notions about quality assurance as well as the way people talk about this in every day practice. The verbs (ensure, assure, etc.) all more or less have the same meaning or

Policies		ensure				
Attitudes		assure				
Means	that	confirm	that the	teaching		maintained
Actions	will	guarantee	quality	scholarship	is	enhanced
Procedures		demonstrate	of	education		
A system		certify				
Attention						

Figure 1. Amalgamated definition of quality assurance (Kistan, 1999)

at least the same connotation. Notice, however, that the list of possible subjects of the sentence is very broad, from attention and attitudes to a system and procedures. The objects in the definition are consistent with the levels that one can distinguish in the educational hierarchy (learner, teacher, system). Of course "enhanced" is put next to "maintained", since it stands to reason to improve quality when it does not meet certain standards.

In the middle of the figure is the word "quality", as if it were totally clear what it means. Referring back again to the basic ideas in the early days of quality assurance in business and industry, a straightforward definition may be *the degree to which the educational product is in line with the goals and objectives* stated in advance. That would imply that one would define quality in a set of measurable dimensions, each dimension representing one quality criterion, and that clear norms or standards are tied to those dimensions indicating the cut off above which there is sufficient and below which there is a lack of quality. In actual fact it is quite more complex than this. First of all the goals and objectives may relate to individual learners, classes and/ or teachers, schools, and/or systems. Second the goals may relate to qualification, selection or allocation functions within the education system. And third, under each function are a variety of domains. In the qualification dimension one may think of the various subjects of the curriculum, but also on import qualification areas such as citizenship, problem solving skills, ICT competencies, social skills, etc.; in other words the so called 21st century skills. And here the problem arises that it may be very difficult – if not to say impossible – to articulate clear dimensions, let alone clear standards for those dimensions, above which there is sufficient quality.

One way to stay away from such dilemmas is to embrace a market approach, like one might do in business and industry. Quality then manifests itself indirectly through the market forces: If there is enough quality consumers will buy the product within certain budget constraints, otherwise not. With free school choice in place one might apply this mechanism in education. But that, of course, is not ethical when educating young children: One has to assure that their education is of high quality, because they only have one chance to get properly educated to begin with. And here another option comes to the fore: If we would know the production function of education,

we just have to make sure that the educational processes have high quality, and then the result will also be of high quality. This distinction, process quality and product quality, already makes it clear that monitoring to assure quality can take on various forms, and in actual fact the simple distinction made here, can become much more fine-grained if we actually consider the complexity of education.

A TYPOLOGY OF QUALITY ASSURANCE MODELS

Early seminal work on perspective taking when evaluating organizations – and thus educational systems or institutions – for their effectiveness has been done by Quinn and Rohrbaugh (1983). They asked a group of 45 qualified organizational researchers and theorists to judge the similarity of often used organizational effectiveness criteria like efficiency, stability, growth, cohesion, stability, adaptiveness, productivity, morale, control, and even quality. When searching statistically into the dimensionality of the outcomes, three dimensions emerged: Means-ends, internal-external, and flexibility-control. Figure 2 contains the dimensions and the underlying effectiveness criteria (the third dimension being indicated by the size of the circles).

In the right lower corner and in the front, as indicated by the large circles, is the product approach to effectiveness: How can one assure that the final product is produced to the needs of the customers? In all other quadrants the focus is on the production process rather than on the final product.

Cheng (2001) is using a similar distinction when applying the core ideas to discuss different models of educational quality relevant for quality assurance. Basically he uses two core ideas: quality of the product and the ways one can assure this by organising the internal process optimally, and quality as perceived by core stakeholders. Although Cheng makes a distinction in eight ideal types, four of them are worth mentioning in the context of this book.

Goal and Specification Model

Within the goal and specification model, clear goals and specifications as indicators and standards for educational institutions and systems are in place, which is actively pursued or to which conformation is required. Internal quality is defined as the achievement of the fixed goals or the conformance with specifications, as listed in institutional or programme plans. Quality assurance is then to ensure that stated goals are achieved or that the given specifications are conformed to (Cheng, 2003). Quality indicators include: academic achievement, attendance rate, drop-out rate, personal developments, number of learners enrolled, and staff professional qualifications.

This model of quality assurance is especially useful if the goals and specifications for judging quality are clear and accepted by constituencies. This model also allows for the focus to remain on key components of education programmes (Cheng & Tam, 1997). A critical note may be that some educational institutions may have an easier task than others to produce high quality outcomes, given that there are obvious
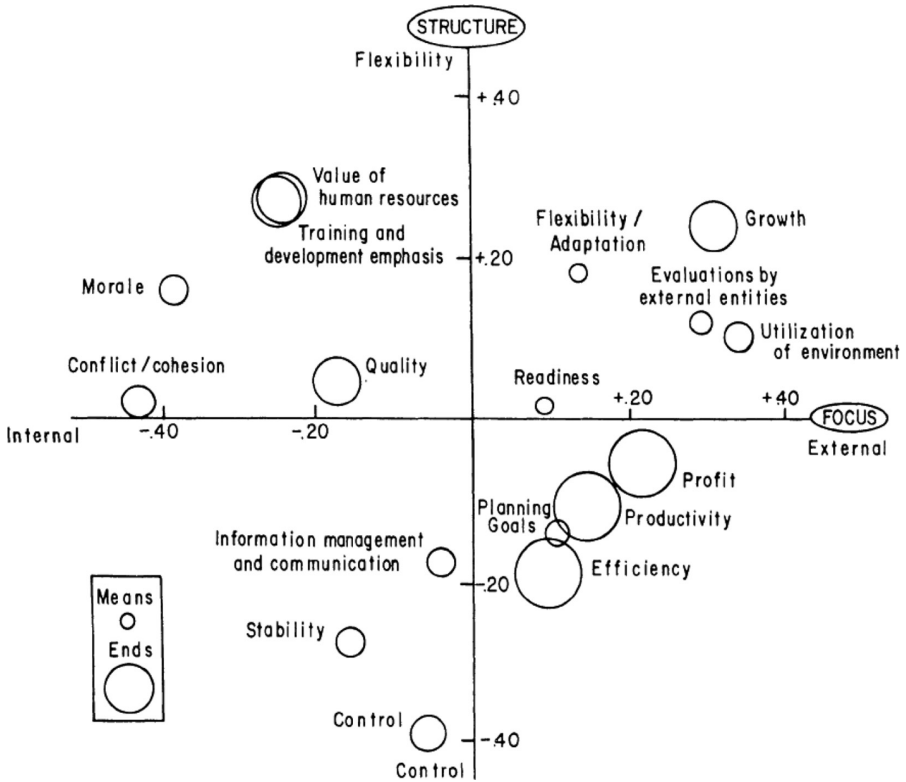
Figure 2. The positioning of organizational effectiveness criteria in three dimensions.
Source: Quinn and Rohrbaugh (1983, p. 368)

differences in the quality of the students enrolling. In practice quality assurance models then may focus more on learning progress or added value rather than on gross school success.

Process Model

In the process model, education quality is viewed from the perspective of smooth, healthy internal processes as well as fruitful learning experiences. The nature and quality of the institutional processes determine the output quality and degree to which goals can be achieved. Generally, management, teaching and learning processes are included. Thus indicators, classified as either management or teaching or learning, (Cheng & Tam, 1997; Cheng, 2003) include: Leadership, decision making and communication channels, co-ordination of activities, planning, teaching efficacy, teaching methods, and learning attitudes.

The emphasis of internal quality is improvement and quality assurance is seen as well-oiled internal processes. This model is useful in situations where there is a clear relationship between process and output, and that is unfortunately not so for education. Of course we know which educational process factors enhance student learning, but such educational effectiveness models are not deterministic but probabilistic, and their predictive power is very limited. Moreover, one of the major limitations of this model is, that it the focus is on "quality means instead of quality ends" (Cheng & Tam, 1997, p. 26).

Satisfaction Model

If an institution is to survive then the satisfaction of strategic constituencies is crucial. Thus, quality is viewed as the extent to which the needs and expectations of powerful stakeholders are met. The difficulty here is that quality then becomes a relative concept as the core of what quality means is dictated by stakeholders. Surveys are often used to gauge the satisfaction of stakeholders and the quality assurance mechanisms in place rely heavily on practices that will meet the expectations (Cheng, 1990).

Total Quality Management Model

The total quality management model views education quality as a combination of elements in the input, process and output of the institution culminating in satisfying both internal and external stakeholders. Quality assurance is the total management of the interface, internal people and processes with outputs meeting strategic stakeholders' needs. Indicators (Cheng, 2003) include: leadership, people management, process management, strategic planning, educational results, stakeholder satisfaction.

The basic message of the distinctions made by Quinn and Rohrbaugh (1983) and Cheng (2003) is, that it matters quite a lot which perspective one takes when looking into quality and the way one wants to assure this. This is basically the reason why the chapters in this book are written from different perspectives as well, with each perspective being legitimate in itself.

STRUCTURE AND CONTENTS OF THE BOOK

This book is structured in four sections.

SECTION 1 is on conceptual issues pertaining to quality assurance and monitoring. Kim Schildkamp and Elizabeth Archer explore the core question how feedback from monitoring data can be used in decision making processes. Caroline Long and Tim Dunne make a clear distinction between internal and external monitoring, and clarify how contextual issues determine the monitoring frameworks one might actually want to use. Nick Taylor explores the role of monitoring in aligning policy

and practice. And in the last chapter of this section Vanessa Scherman and William Fraser highlight the underlying rationale of different self-evaluation systems originating from different contexts – i.e. different stages of schooling and/or different countries, in which monitoring, feedback and improvement are intertwined.

SECTION 2 contains more or less worked examples of monitoring systems at the school and classroom level. Fabienne van der Kleij, Adrie Visscher, Linda Staman and Theo Eggen describe two such examples based on student monitoring data. This chapter also goes into the issue of how professional staff development might be set up and used in order to make such systems effective, and provides some evidence on the effectiveness of these approaches. Christine Merrell's chapter describes how monitoring systems that are mainly external to the school and mostly used for accountability purposes in the United Kingdom, are inferior to school internal monitoring systems when considered from a self-evaluation perspective. Mechteld van Kuijk, Marjolein Deunk and Lieneke Ritzema describe a similar system for Dutch primary education that contained many of the desirable elements already dealt with in previous chapters: The basis of a student monitoring system, a feedback loop, professional development including standard setting for individual students and improved adaptive instruction. And they supplement this description with evaluation resuls.

SECTION 3 focuses on system level monitoring. In countries that are full or associated members of the Organisation for Economic Corporation and Development the PISA-assessments, in action since the turn of the century, and their application for system level monitoring are well known. The IEA, that already did assessments starting in the nineteen seventies, and SAQMEC assessments for the sub-Saharan countries are of course equally useful monitoring systems. Carlos Lauchande, the late Ana Pasos, and Sarah Howie illustrate in their chapter the use of the rich SAQMEC-assessments in monitoring the quality of education in Mozambique. And Surette van Staden and Lisa Zimmerman provide in their chapter similar rich applications of the Progress in International Reading Literacy Study (PIRLS) assessments for South African primary education policy.

In SECTION 4 then attempts are made to describe future pathways for monitoring for educational quality. Sarah Howie, Vanessa Scherman and Surette van Staden in their chapter focus on the factors that might enhance successful monitoring practices in the future, given past experiences. And Sarah Howie and Vanessa Scherman, in the closing chapter of this book, return to the question how in the future monitoring the advancement of 21st century skills may play a more central role in the monitoring of education.

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