Risk-based school inspections of Dutch schools and school boards: A critical reflection on intended effects and causal mechanisms

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Summary
Starting in January 2008, school inspections are targeted at schools with high risks of failing quality and school boards are now the primary contact in school inspections. In this paper a program theory approach was used to reconstruct the assumptions describing intended effects of these inspection methods. The assumptions were evaluated to predict the (in)effectiveness of the inspection methods.

Introduction
Starting in January 2008, the Dutch Inspectorate of Education uses a risk analysis to inspect schools. This inspection method signifies a change in how schools are inspected. Before 2008, all schools were scheduled for full inspections once every four years; after 2008 school inspections are targeted at schools with high risks of failing quality. A second change in method is the fact that school boards are now the primary contact and object of inspection instead of the principal of a school.

These changes in inspection methods result from changes in the Dutch Department of Education’s philosophy and theory of action on how schools should be controlled and governed. The changes are described in several policy documents and are referred to as ‘good governance’. Good governance refers to a new administrative arrangement where the Department of Education controls the results and outcomes of schools and controls the checks and balances schools have in place to evaluate their education using input from relevant stakeholders. These changes are also regulated through legal changes that oblige schools to have separate mechanisms in place for the administration and internal supervision of their schools and to develop codes of conduct for good governance. In addition, schools are also given more leeway to make their own decisions on how to organize and provide their education.

According to the Department of Education, these changes were prompted by the increased scale and professionalism of schools. The Department of Education was also facing budget cuts that lead to a reduction of 20% in inspection staff between 2007 and 2011.

Good governance assumes that schools are capable and can be trusted to independently monitor, evaluate and improve the quality of their education without intensive control by the Inspectorate of Education. School boards are expected to be accountable to the stakeholders of the school, such as parents and students. They should have a quality assurance system in place to provide an account to stakeholders and to monitor and improve the quality of their schools. An internal supervisory board should control the functioning of school boards in providing such an account and in adequately monitoring the quality of their schools. The quality assurance system, accountability to stakeholders and internal supervision are expected to provide the necessary horizontal checks and balances for monitoring and improvement of quality of schools.

In such a system of horizontal checks and balances the role of the Inspectorate of Education also changes. Their role becomes more complementary to the mechanisms and processes the school has in place to monitor and improve education. The new role of the Inspectorate of Education is described in six principles of good inspections (independent, transparent, professional, selective,
rigorous and cooperative) and summarized as ‘risk-based, aligned to self control of schools and fitted to the level of monitoring schools require’.

According to the Department of Education, school inspections no longer have to provide a whole school evaluation; school inspections should be aligned to the risks of low educational quality in schools and should hold school boards responsible for the quality of their schools. Schools and school boards that have incorporated the principles of good governance are capable of monitoring the extent to which schools comply with legislation and offer good quality. The Minister of Education should however be able to intervene in schools that have not incorporated these mechanisms and principles, or where these mechanisms do not lead to adequate results and outcomes. New legislation provides for additional sanctions and interventions in case schools fail to have adequate student achievement results; these achievement levels in mathematics, reading and writing are also specified in legislation.

The intended effects of these (partly) new inspection methods are (in addition to a reduction in the costs of school inspections of 20%) expected to improve and maintain high quality education. The Inspectorate of Education expects to contribute to effective and high quality education.

These assumptions about how schools should be inspected, the effects such inspections are expected to have, and how these effects should be realized form the program theory underlying the Dutch school inspections. In this paper we reconstruct this program theory, using a document analysis. We focus on the activities of the Inspectorate of Education and how these are expected to lead to improved education.

The accuracy, consistency and empirical value of the assumptions will be evaluated. This reconstruction and evaluation provide insight into the potential effectiveness of school inspections to contribute to high quality education. As such, this reconstruction and evaluation are part of an ex ante evaluation of the new risk-based inspections of school boards, answering the following research questions:
- How are school inspections expected to lead to good education?
- How consistent, precise and realistic are the assumptions regarding the expected effects of school inspections?
- How likely are school inspections to contribute to high quality education?

The next section outlines the method to reconstruct and evaluate the program theory.

**Method**

The first step is to reconstruct the assumptions that explain how inspection is supposed to work. This conglomerate of assumptions forms the program theory (Chen, 1990). Next, the reconstruction of the program theory is validated to be certain of having a legitimate overview of the assumptions. The last phase consists of a critical evaluation.

**Reconstruction**

The reconstruction phase starts with a number of choices that have to be made. First of all, the aims of reconstructing the program theory have to be stated. According to Fleurke and Huizenga (1988), possible aims may be to describe, to explain, or to predict the (in)effectiveness of a program or to analyze the way policy is developed. The program theory in this study is part of a larger research project designed to measure the impact of school inspections on teaching and learning in the Netherlands. The aim of reconstructing the program theory is therefore to predict the (in)effectiveness of inspection by describing and evaluating how schools should be inspected, the effects such inspections should have, and how these effects should be realized.
Second, the method of gathering information about assumptions should be chosen. The (re)construction of the program theory should be explained, and the way in which assumptions are explained should be described. As the changes in inspection methodology are well outlined in numerous policy documents and inspection brochures, analyzing these documents is a logical starting point. Other possibilities are group discussions and interviews with relevant respondents. The advantage of documents in relation to interviews and discussions is, however, that expressions are often more consistent (Karstanje, 1996).

Translating the information into assumptions can be done in a number of ways. Selection of one of these methods is the third choice to be made. Leeuw (2003, p.7) described a number of methods (that relate to the way information is gathered). We will use the policy scientific approach, which consists of the following steps:

1. Identify the social and behavioral mechanisms that are expected to solve the problem; search formal and informal documents for statements indicating the necessity of solving the social, organizational, or policy problem in question, the goals of the proposed policy or program, and how they are to be achieved. These latter statements refer to mechanisms (or “engines”) that drive the policies or programs and are believed to make them effective. Examples are manifold. They include determinants of innovation diffusion, mechanisms underlying Prisoner’s Dilemma games, processes producing social capital, cognitive dissonance, different types of learning behavior, and many more. Statements having the following form are especially relevant for detecting these mechanisms:
   - It is evident that x will work.
   - In our opinion, the best way to address this problem is to . . .
   - The only way to solve this problem is to . . .
   - Our institution’s x years of experience tell us that . . .

2. Compile a survey of these statements and link the mechanisms to the goals of the program under review.

3. Reformulate the statements into conditional “if-then” propositions or propositions of a similar structure (e.g., “the more x, the less y”).

4. Search for warrants that will identify disconnects in or among different propositions using argumentation analysis. Founded in part on Toulmin’s (1964) The Use of Argument, argumentation analysis refers to a model for analyzing chains of arguments and helps to reconstruct and “fill in” argumentations. A central concept is the warrant, which, according to Toulmin (1958) and Mason and Mitroff (1981), is the “because” part of an argument. A warrant says that B follows from A because of a (generally) accepted principle. For example, “the organization’s performance will not improve next year” follows from “the performance of this organization has not improved during the past 5 years” because of the principle that past performance is the best predictor of future performance. The “because” part of such an argument is often left implicit, with the consequence that warrants must be inferred by the person performing the analysis.

5. Reformulate these warrants in terms of conditional “if-then” (or similar) propositions and draw a chart of the (mostly causal) links.

Examples
To clarify these steps, an example will be given of how statements were used to reconstruct assumptions.

Statements:
- “In case the Inspectorate of Education identifies failures in schools, schools are monitored more intensively until problems are solved.”
Whenever a school is assessed as failing, the Inspectorate of Education monitors the school intensively. The goal of this intervention phase is to make sure educational quality in the school is improved to an acceptable level as soon as possible."

All of these lead to the following assumption:
‘If failing schools are inspected more often, then they will improve more quickly’.

This example illustrates how the assumptions were reconstructed; in the description of the results we refer to the documents that include the statements we used for reconstructing these assumptions. Such detailed reference to underlying documents enables the reader to check our method of reconstruction.

**Participant Check**
After reconstructing the program theory, the reconstruction is validated, in the sense of being reviewed by relevant actors, to be sure that the assumptions actually represent the intentions of the current method of school inspections. This kind of participant check is often described as a criterion the reconstruction should meet. Performing it separately enables us, however, to be more specific about faulty interpretations during the reconstruction phase. The intermediate adjustments can be explained and accounted for.

The assumptions were checked by four employees of the Inspectorate of Education. They were asked to indicate whether the assumptions (translated into statements) fit the intention of the current inspection method. If not, interviewees were asked why, in their view, this was not the case.

This participant check led to a number of changes in the results. The provision of a check up visit in all schools once every four years and the publication of inspection findings was added to the program theory to describe the full range of inspection methods, instead of only the new inspection methods. Also, a number of additional documents related to the legislative changes of good governance in schools were analyzed to elaborate on the assumptions related to the communication to the school boards and provide more detail on the context in which the Inspectorate operates. The results section includes these changes.

**Evaluation**
A critical evaluation of the program theory is the last phase of the study. Results of prior research are used to analyze how consistent, complete, and realistic the assumptions are. By doing so, the potential effects (and side effects) of the act can be predicted.
Results
The current method of school inspections has evolved over a long period of time. The Supervision Act of 2001 posed an important marking point in the development of the current inspection methods. This Act specified quality standards the Inspectorate should use to assess schools using a proportional working method. Proportional inspections include the use of results of quality assurance and self-evaluation of schools by the inspectorate to form judgments about school quality. Schools are inspected less frequent and intensive when the Inspectorate of Education is able to use the results of quality assurance and self-evaluation. In addition, the Act required the Inspectorate to annually evaluate schools and publish the assessment results of schools.

In a letter to all school boards (November 29, 2007), the Inspectorate of Education describes the two most prominent changes in these working methods: risk-based school inspections (instead of proportional inspections) and addressing school boards in inspection of schools (instead of the principal). In addition, the House of Representatives of the States General agreed that all schools should at least have some kind of inspection visit once every four years. These visits should enable the Inspectorate of Education to keep a thorough picture of the overall educational quality in schools and should prevent schools from having no inspection visit for a long period of time. The House of Representatives also agreed to increase the amount of sanctions and interventions for persistently low achieving schools.

The inspection framework remains unchanged but is now primarily used to evaluate schools that show risks of low educational quality. The Inspectorate of Education also still publishes its findings of schools; however, instead of publishing an assessment of the school’s functioning on all the standards in the inspection framework the Inspectorate now publishes the type of activity/visit assigned to schools, reports of inspection visits and a list of weak and underdeveloped schools.

The central elements in the current school inspections (combining the requirements in the 2001 Supervision Act and the recent changes related to good governance of schools) are therefore risk-based school inspections which may (when a school is consistently low performing) lead to additional interventions and sanctions, communication to school boards, publishing inspection information and four yearly visits.

The annual working document of the Inspectorate (2010) summarizes the intended effects of these working methods by stating ‘Effective school inspections for good education. That is the mission of the Inspectorate of Education. Good education to ensure that all students in the Netherlands have the opportunity to achieve their academic potential. School inspections are our instrument to achieve that aim, to inform stakeholders and to keep them sharp.’ In addition to this mission the Inspectorate of Education describes that ‘educational quality is detailed in legislation and in quality aspects used by the Inspectorate of Education to assess quality of schools. These quality aspects are described in the Supervision Act.’ The inspection framework includes both legal aspects schools should comply with and the quality aspects to evaluate schools; the inspection framework can therefore be considered as the outline of what the Inspectorate considers ‘good education’; the ultimate effect of their work is to have all schools meet the standards in this framework.

The figure below summarizes the main assumptions in the program theory of the Dutch Inspectorate of Education. These assumptions are described in more detail in the following sections.

Insert figure 1.

Risk-based school inspections
The Inspectorate of Education annually analyses potential risks of failing educational quality in schools using an early warning analysis. Every year the Inspectorate carries out early warning analyses of all schools. In these analyses, information is collected on possible risks of low educational quality in all schools, such as student achievement results on standardized tests, self evaluation reports and financial reports of schools, complaints of parents and news items in the media. Results of students (corrected for their socio-economic backgrounds) on national standardized tests and examinations are the primary indicator in the early warning analysis of primary and secondary schools. The Inspectorate considers student results to be a good predictor of the educational quality of schools. It should be noted that early warning analysis (using test scores) is not used to evaluate outcomes of the school. The test scores are only used as a first indicator of potential risks of low educational quality in schools.

The early warning analysis is used to classify schools in three categories; schools in the ‘green’ category are considered to have no risks of failing quality, ‘orange’ schools have potential risks of failing quality, whereas ‘red’ schools have high risks of failing quality.

The Inspectorate of Education schedules desk research in schools in the orange category. These schools are requested to send in the student achievement results of students in intermediate grades in reading and mathematics. The Inspectorate also analyses additional documents of the school, such as annual reports. In case this desk research shows no risks (the documents are in order and the intermediate results are sufficient and there are no indications of risks); the school gets reassigned to the green category. The school board however receives an informal warning in case the achievement of students in the final grade is below average or is declining.

An interview with the school board is scheduled in case the desk research points to potential risks. Potential risks are discussed during this interview, as well as the capacity of the school board to address and solve these risks. An additional inspection visit to the potentially failing school is scheduled in case this interview does not provide the Inspectorate of Education with sufficient information or in case the capacity of the school board to address the risks is evaluated as inadequate. During this visit, the inspection framework is used to assess educational quality in the school as sufficient, failing or highly underdeveloped.

The Inspectorate of Education also schedules desk research of schools in the red category, comparable to the desk research of schools in the orange category. School boards of schools in the red category are also scheduled for an interview and schools receive a full inspection visit to evaluate their educational quality.

Schools that are evaluated as failing or highly underdeveloped are scheduled for additional inspection activities. The Inspectorate of Education instructs the school board to formulate a plan of approach aimed at improving quality. The Inspectorate tests the plan and lays down performance agreements in an inspection plan. This plan specifies when the quality should be up to par again and what (interim) results the school must attain. It also specifies the indicators the Inspectorate of Education will assess in (interim) inspection visits. The school board must commit to the inspection plan. Failing schools that do not improve within two years end up in the regime imposed on highly underdeveloped schools. These schools are confronted with additional inspection activities, such as a meeting between the school board and the Inspectorate management or an official warning. If these activities do not yield the result agreed upon, the Inspectorate will report a highly underdeveloped school to the Minister, along with a proposal for instating sanctions. On the basis of this report, the Minister may proceed to impose administrative and/or financial sanctions.
The aim of these early warning analyses is to increase school inspections of potentially failing schools and to decrease inspections of well-developed schools\textsuperscript{vii}. Well-developed schools should experience less inspection burden and, as a result, should experience more freedom and leeway to organize and make decisions on their education\textsuperscript{vii}:

‘The Inspectorate of Education will concentrate on schools that show the highest risks of insufficient quality. The inspection burden will decrease for schools that perform well’\textsuperscript{viii}.

The rationale for focusing on potentially failing schools is that high performing schools have shown they are able to provide high quality education; they have earned trust to make their own decisions on their education. These schools may use the increase in autonomy granted to all schools in the last couple of years by the Department of Education to do so\textsuperscript{ix}.

The decrease of inspection activities in highly developed schools also enables the Inspectorate of Education to assign its capacity to failing schools\textsuperscript{vii}. The Inspectorate expects to increase the overall effectiveness of their inspection activities when focusing on failing schools. Increased inspection activities and targeted inspection interventions in weak schools (such as publishing their names on the internet) are expected to lead to speedy improvement of these schools. These schools are given instructions to improve specific indicators in the inspection framework which are continuously evaluated by the Inspectorate of Education. As a result, these schools are forced to improve and to solve their problems. According to the Inspectorate, this approach has been successful in failing schools\textsuperscript{xii}.

‘Whenever a school is assessed to be failing or to be highly underdeveloped, the Inspectorate of Education increases its inspection activities in these schools. The goal of these interventions is to improve the educational quality of these schools as quickly as possible. ‘\textsuperscript{xii} All interventions are aimed at repairing any shortcomings as soon as possible and to assign a basic inspection arrangement to schools\textsuperscript{xiii}. ‘In most schools the Inspectorate of Education only has to address the school board or management of the school about identified failures and to make agreements on improvement. The school implements the improvements and the Inspectorate evaluates the results of these improvements.\textsuperscript{xiv}

The Inspectorate of Education also expects the risk-based approach and increased inspection activities in weak schools to lead to a decrease in the number of failing and highly underdeveloped schools. Early identification of potential risks of failing quality should enable speedy interventions in these schools that are expected to prevent a further decline in educational quality in these schools\textsuperscript{xv}:

‘The risk-based inspection approach aims to identify schools that run the risk of failing. The Inspectorate schedules evaluations of these schools to prevent any further decline in the quality of these schools.\textsuperscript{ xvii}

The assumptions are summarized in appendix 1.

**Communication to school boards**

A second change in the inspection methodology includes the communication of inspection activities and outcomes and potential interventions with the school board instead of the (principal of the) school. This approach is aligned to the new philosophy of good governance where school boards are considered the primary actors in governing the quality of their schools and where additional legislative changes require school boards to have an internal supervisory board in place and to provide an account to stakeholders. The inspection methods should be aligned to the responsibility of school boards and to these changes\textsuperscript{xvii}. 
The Inspectorate functions in a context in which school boards have the primary responsibility for the quality of education and for compliance to legislation. (...) The school board should monitor and improve the quality of education in close dialogue with all relevant stakeholders, particularly students and parents.

Communication of inspection activities, outcomes and interventions to school boards is (in addition to changes in legislation) expected to improve the governance of schools. School boards are expected to improve the governance of their schools through implementing a quality assurance system that will on the one hand enable them to monitor and improve the quality of education in their schools and will on the other hand enable them to provide information on the quality of their schools to the Inspectorate of Education.

Good governance of schools also includes, according to policymakers that separate mechanisms are in place for the administration and internal supervision of schools and accountability to stakeholders of the school. School boards are expected to provide stakeholders (such as parents and students) and internal supervisors with relevant information about the school and to communicate about potential improvements. Stakeholders and internal supervisors are, in turn, expected to control school boards in their work to prevent and/or improve failing schools, using governmental regulations and inspection standards. Stakeholders in schools should also motivate school boards to improve their schools through expressing their expectations on educational quality in schools and voicing any complaints. They are expected to use the information on their school that is published on the website of the Inspectorate or provided to them by the school to address issues in the school that need to improve.

School boards that have good governance in place are expected to become more aware of the quality of their schools and to take action whenever a school is failing. School boards should also be able to prevent schools from becoming a failing or highly underdeveloped school.

‘As a result of our direct communication to, and approach of, school boards, there are more school boards that implement a quality assurance system which should prevent schools from failing or from becoming a highly underdeveloped school. The Inspectorate tries to stimulate these activities.’

‘Inspections of weak schools have increased the last few years. As a result of this, school boards are empowered to take more speedy actions to prevent schools from failing. We expect these actions to prevent any new failing or highly underdeveloped schools in the future’.

The assumptions are summarized in appendix 1.

Four yearly visits

The House of Representatives of the States General agreed in October 2007 to add a provision of four yearly visits to the risk-based school inspections. All schools in primary and secondary education (also high quality schools) should be visited by the Inspectorate of Education at least once every four years. This visit may include different types of inspections, such as inspections of specific subjects or areas, inspections to inform the Inspectorate on the State of Dutch Education or inspections to validate the risk-based inspection methodology. These visits are, according to the documents, instated to provide for a ‘reality check’ and to prevent schools from having no inspection visit for a long period of time. The policy documents provide no explanation as to the ultimate goal of these visits, but it is assumed that these visits should somehow contribute to the final intended effect of good education. The assumptions are summarized in appendix 1.

Publication of findings
The Supervision Act of 2001 already regulated the publication of the assessments of schools by the Inspectorate of Education. Before the implementation of risk-based school inspections, the Inspectorate of Education published so called quality cards of every school on the internet. These quality cards included an overview of a school’s score on each of the inspection standards. The Inspectorate also published all inspection reports. After the implementation of risk-based school inspections a larger diversity of information on quality of schools was published, including the type of activity/visit assigned to schools, reports of inspection visits and a list of weak and underdeveloped schools.

The intended effects of publishing this inspection information seem however unchanged. The information should lead to improvement of schools and good education. Before the implementation of ‘good governance’ in schools and the risk-based school inspections, parents were expected to play a central role in promoting these intended effects by using inspection information to motivate schools to improve. They should use the assessment of the Inspectorate to choose a school and they should use the assessment to address the principal of the school about necessary improvements in the school (Ehren, 2006). This mechanism is also expected to occur after the introduction of the new inspection methods (Verkroost and de Wolf, 2010) but is now embedded in a broader arrangement of ‘good governance’. Internal supervisors (parents may be part of these internal supervisory boards), other stakeholders (such as students) and school boards should use the inspection information to control school boards and schools and motivate them to improve. They are expected to use governmental regulations and inspection standards in doing so (Janssens and de Wolf, 2010).

The assumptions are summarized in appendix 1.

Figure 2 provides a summary of the assumptions in the program theory. The figure shows that risk-based school inspections are expected to lead to limited inspection activities in well-developed schools, whereas potentially failing schools receive an increase in inspection activities. Well-developed schools are expected to experience more freedom to make decisions on how to organize their education and to use this freedom to provide good education. Potentially failing schools are monitored intensively by the inspectorate and receive tailored interventions to make sure they improve rapidly. The speedy identification of potential failing schools should also prevent any further decline of educational quality in these schools.

Addressing the school boards in all inspection activities (and the additional legislative changes) is expected to motivate school boards to improve their governance of schools. This approach should motivate school boards to monitor and improve the quality of their schools.

Arranging four yearly visits to all schools in primary and secondary education (also high quality schools) are expected to provide for a ‘reality check’ and to prevent schools from having an inspection visit for a long period of time. These visits are also expected to contribute to the final intended effect of good education.

Finally, publishing inspection information about quality of schools is expected to inform internal supervisors of schools, stakeholders of the school and school boards in their role towards the school. They are expected to use this information to control schools, to use this information to choose schools or to motivate schools to improve. As a result, schools are expected to improve and provide good education.

*Insert figure 2*
Evaluation
The program theory in the previous section pointed out how the Dutch school inspections are expected to lead to good education. In this section we will evaluate the extent to which these assumptions are valid, using evaluative criteria described by Leeuw (1983). These criteria refer to the consistency, precision of definitions and empirical value of the assumptions in the program theory. According to Leeuw (1983), these criteria may be used to suggest possible flaws in the program theory that arise when assumptions are incorrect and when inspection (as planned) is not able to produce the desired effects.

Precision of definitions
The first criterion in our evaluation refers to the extent to which the definitions in the program theory are precise and clear. The program theory clearly specifies and describes the three aspects of school inspections (risk-based inspections, communication to school boards and four yearly visits) and the intended effect of ‘good education’. Risk-based school inspections for example include early warning analyses to identify risks of potential failing schools, using student achievement results of schools, documents and signals. ‘Good education’ is detailed in the standards in the inspection framework.

Good governance could however be more clearly defined. The program theory only specifies some elements of good governance (e.g. quality assurance, accountability to stakeholders and internal supervision) without providing a thorough description of the overall concept of good governance and how it may lead to improvement and good education in schools. Good governance has been described in many different contexts. A large part of the literature refers to businesses and companies, but the United Nations has also enunciated a set of principles of good governance of countries. Good governance generally refers to ‘a process whereby societies or organizations make their important decisions, determine whom they involve in the process and how they render account’ (Graham, Amos and Plumptre, 2003, p.1). According to Bird (2001), governors (such as school boards in education) are expected to oversee management systems and activities (such as executed by the management or principal of the school) and judge authoritatively whether and to what extent these systems and activities are in the best interests of their organizations.

Governing school boards can take different roles in executing these tasks according to Ranson et al (2005). They can act as a deliberative forum, having discussions about the school and questioning the management of the school about the school’s process. They may also act as a consultative sounding board to the management team, providing consent and authorization to strategies and policies that are initiated by the principal. The school board takes a more active role in the management of the school when acting as an executive board, assuming overall responsibility for the business aspect of the school (budget, staffing, and infrastructure). Finally, the school board can act as a governing body, taking overarching responsibility for the conduct and direction of the school and taking strategic leadership of the school. The program theory of the Dutch school inspections seems to enable all four types of governance, as long as school boards promote school improvement. The tools and structures described in the program theory (quality assurance, accountability to stakeholders and internal supervision) are expected to facilitate the school board in taking any of these four roles and aligning their role to promoting improvement of schools.

Consistency
The most prominent inconsistency in the program theory is the combination of risk-based school inspections on the one hand and the four yearly visits of all schools. Risk-based school inspections were implemented to only visit potentially failing schools and decrease inspection visits of high quality schools. The four yearly inspections however specifically include those high
quality schools. There are good arguments in place to include these schools in the schedule of inspection visits (e.g., evaluating the quality of the risk based inspection methodology), but doing so is inconsistent with the premise of the risk-based inspection methodology to focus only on potentially failing schools.

*Empirical value*

The final criterion, ‘empirical value’, describes the extent to which the assumptions are realistic, using results of prior studies. We will tune in on two mechanisms that are most central in the program theory: first the improvement of (particularly weak) schools as a result of school inspection visits and increased monitoring, and second the improvement of schools in general through good governance of schools.

**Inspection visits and school improvement**

Research to date shows some evidence that school inspections, and particularly inspection visits, lead to improvement of weak schools. Luginbuhl et al (2009) for example found that test scores of pupils in primary education improved by 2 to 3% of a standard deviation in the two years following an inspection visit. Several authors describe how (particularly schools that had received a negative or slightly positive assessment from the Inspectorate) implement improvements such as rules of conduct for students or changes in management styles and structures (Kogan and Maden, 1999; Ouston et al., 1997). Ehren and Visscher (2008) found in their case studies that all schools use the feedback received from the school inspectors to improve their functioning.

Other studies have however also found a negative relation between school inspections and student achievement. Rosenthal (2003) for example found a decrease in examination results of pupils in England in secondary education in the year of the inspection visit. He explains this result by pointing to the extensive preparation of schools for the visit that may take time and energy away from the teaching and learning process. Shaw et al (2003) found that schools where achievement was already much higher or lower than the average, the inspection was associated with slight improvement in achievement. Inspection did not improve examination achievement in maintained comprehensive schools.

The likelihood that a school will successfully improve as a result of school inspections will probably depend on such internal features as cooperation between teachers and organizational learning, as well as on the context of the school (e.g., the level of support provided by parents). Standaert (2000) states that the impact of inspections depends, amongst other things, on the staff’s attitude towards change. Some schools are not only more inclined to use the recommendations from inspectors than other schools, but also more capable of implementing the required changes. Two conditions for implementing inspection findings are, according to Matthews and Sammons (2004), leadership that can generate and execute a strategy for implementing inspection outcomes, including effective action planning, and the identification of any resources and support needed to effect improvement. Moreover, school external forces and bodies can also press and/or stimulate schools to improve. These features are not part of the program theory but should be included as necessary preconditions for the intended effects; they may explain the mixed research evidence on effects of school inspections.

**School inspections, good governance and school improvement**

According to Ranson et al (2005), there has been little research in governors’ involvement in school improvement and how they may enhance pupil achievement as well the practice of learning and teaching. Most research is on governors’ involvement in new systems of delegated school management and has focused on their decision-making roles.

Ranson’s et al (2005) study of school governance in Wales and McAdams (2006) study of reform governance for urban schools however point to some directions on how better governance of
schools may sharpen the practice of management, which in turn may generate improved standards of attainment. Ranson et al (2005) for example emphasize that governing bodies should provide strategy, enable scrutiny of direction and practice, offer guidance and support and should ensure accountability. These qualities are expected to secure the authority and trust of schools as public institutions and should help to improve the effectiveness of the environment of learning and teaching through establishing processes that generate better results. School boards that are exemplary of such good practice represent the wider community of the school and provide a different voice and perspective of high expectations of the school; they have a partnership of mutual support with the management of the school where roles are clearly divided between management/principal and school board. According to McAdamas (2006) and Ranson et al (2005), these school boards have a clear theory of action on goals and strategies for/in the school and how the school should work and how children learn, they have a system in place for monitoring and reviewing the standards of achievement and of financial plans and policy development of the school that closely link them to the life of the school and enable them to develop knowledge and understanding of the key practices of learning in the school (e.g. through classroom visits). These school boards also have an effective infrastructure in place that includes productive board meetings and policy development that avoid spending much time on routine operating policies.

McAdams (2006) also emphasizes how theories of action and roles of school boards need to be adapted to the functioning of schools. School boards that govern schools that mostly do well and only need fine tuning may use a ‘(managed) performance/empowerment’ theory of action. Key words here are participative management and employee involvement, combining accountability for results with empowerment, promoting innovation and a performance culture. School boards governing schools that need to make substantial changes to address persistently low student achievement however need another theory of action, such as one of ‘managed instruction’. To improve student achievement, school boards should directly manage instruction, using the same comprehensive and aligned curriculum, managing how teachers teach (lesson plans, teaching materials, formative and summative assessments, etc.), offering professional development centered on the curriculum and how teachers teach it.

In the Netherlands, school inspections are expected to promote good governance of schools particularly through the provision of strategic information on quality of schools to school boards and through communication of inspection activities and interventions in their schools to school boards. School boards are also expected to have a quality assurance system in place, be accountable to the stakeholders of the school and to internal supervisors. The research evidence above indicates that this strategy may to some extent promote good governance and improvement of schools. However, more conditions (such as good relations between the school board and the management of the school and a theory of action fitted to the need of the school) also need to be in place for good governance and improvement of schools. These conditions are not addressed in the program theory; the Inspectorate of education also does not foresee any actions to improve or contribute to these conditions.

According to Van Bruggen (2010) the growing trend of decentralization and autonomy and focus on good governance of schools however also implies inspections of the (prescriptions set for) governance of schools. School inspections should for example address if self evaluations are done correctly and adequately and whether external components are included in these self evaluations, whether the advisory board or internal supervision board functions adequately and takes up its responsibility, whether action plans for improvement of the school are developed and carried out with involvement of all stakeholders. The Inspectorate of Education should hold schools and governors accountable for good governance of schools. When approving and monitoring the school board’s action plans for improving failing schools the Inspectorate could for example oblige school boards to choose a theory of action that fits the need of these schools.
Conclusion and discussion

In this paper, the assumptions underlying the current school inspection methods were reconstructed to describe how school inspections are expected to lead to good education. Using a literature study, we evaluated the extent to which these assumptions are consistent, precisely defined and realistic.

The reconstruction of the program theory showed that there are two main mechanisms through which school inspections are expected to promote good education in the Netherlands. The first mechanism includes risk-based school inspections that are targeted towards potentially failing schools. These schools are scheduled for inspection visits and monitored intensively when their quality is not up to par. Inspections and interventions (and the threat of potential sanctions) in these schools should lead to improvement.

The second mechanism includes communication of inspection activities and interventions to the boards of schools. This mechanism and the inspection activities are embedded in a broader theory of action where additional legislative changes are made to improve the governance of schools and, as a result, the educational quality in schools. The Inspectorate supports and promotes good governance of schools by providing strategic information to the school and motivating the school board to take responsibility for improving and guaranteeing the quality of its schools.

In addition to these two mechanisms, the program theory also describes how four yearly visits should provide for a reality check on quality of schools and should prevent schools from having an inspection visit for a long period of time. Finally, publishing inspection information is expected to inform internal supervisors of schools, stakeholders of the school and school boards in their role towards improvement of the school.

The evaluation of these assumptions showed that most definitions are clearly described and specified. The evaluation however pointed to one inconsistency in the combination of risk-based school inspections on the one hand and the four yearly visits of all schools on the other hand. Risk-based school inspections were implemented to only visit potentially failing schools and decrease inspection visits of high quality schools. The four yearly inspections are however intentionally scheduled to include those high quality schools in the scheduling of inspection visits.

The final criterion to evaluate the program theory pertains to the empirical value of the assumptions. Evidence suggests that school inspections may indeed lead to improvement of failing schools, particularly when internal conditions in the school (such as school staff’s attitude towards change) are beneficial to improvement and external bodies press the school to change.

Prior studies include some (limited) evidence of improvement of schools as a result of good governance of schools, particularly when school boards implement a theory of action that fits the needs of their school(s). The Inspectorate of Education should promote school boards to choose such a theory of action.

The reconstruction of the program theory and the evaluation of the assumptions that are part of this program theory have pointed out how school inspections are expected to lead to good education. The merit of this program theory method lies in the possibility of giving a critical evaluation of assumptions behind innovations or interventions, such as the changes in the Dutch inspection methods. As such, the program theory provides a thorough ex ante evaluation of the new policy on inspections of schools. A second merit is the link between theory and practice that is made when reconstructing program theory as a starting point for further research. The means, goals, and intervening mechanisms can be used to develop variables for further investigation, ensuring that research activities match the actual programs and policy aims and match the activities that are part of these programs and policies.
References


Appendix 1. Summary of assumptions

Table A1.1 Assumptions on risk-based school inspections

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Reason</th>
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</thead>
<tbody>
<tr>
<td>1. If the Inspectorate of Education uses risk-based school inspections,</td>
<td>Because: schools have autonomy to make decisions on how to organize their education, using their own professional insights (the Department of Education only decides on the outcomes they should achieve). Because: administrating and controlling schools are closely connected. Schools will experience more freedom if they are controlled less often.</td>
</tr>
<tr>
<td>then schools will (eventually) offer good education.</td>
<td></td>
</tr>
<tr>
<td>1.1 If the Inspectorate of Education uses risk-based school inspections,</td>
<td></td>
</tr>
<tr>
<td>then good schools will be inspected less often, whereas failing schools</td>
<td></td>
</tr>
<tr>
<td>are inspected more often.</td>
<td></td>
</tr>
<tr>
<td>1.2 If good schools are inspected less often, then they will experience</td>
<td>Because: in most cases schools will improve when the Inspectorate addresses potential shortcomings to the school board and makes agreements on potential improvements. School boards often are not aware of the failure of their schools or of the decline in quality of their schools.</td>
</tr>
<tr>
<td>more freedom to make decisions on their own education.</td>
<td></td>
</tr>
<tr>
<td>1.3 If good schools experience more freedom to make decisions on their</td>
<td></td>
</tr>
<tr>
<td>own education, then they will use this freedom to (maintain or) offer</td>
<td></td>
</tr>
<tr>
<td>good education.</td>
<td></td>
</tr>
<tr>
<td>1.1 If the Inspectorate of Education uses risk-based school inspections,</td>
<td></td>
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<tr>
<td>then failing schools are inspected more often.</td>
<td></td>
</tr>
<tr>
<td>1.2 If failing schools are inspected more often, then they will improve</td>
<td>Because: the Inspectorate instructs the school boards of these schools to improve failing indicators within a specified time frame. The Inspectorate also checks the results of these improvements. Schools are motivated to improve through publication of their name on a public list of failing schools and the potential threat of sanctions.</td>
</tr>
<tr>
<td>more quickly.</td>
<td></td>
</tr>
<tr>
<td>1.3 If failing schools improve, then they will offer good education.</td>
<td></td>
</tr>
<tr>
<td>1.1 If the Inspectorate of Education uses risk-based school inspections,</td>
<td></td>
</tr>
<tr>
<td>then failing schools are inspected more often.</td>
<td></td>
</tr>
<tr>
<td>1.2 If failing schools are inspected more often, then the Inspectorate</td>
<td>Because: in most cases schools will improve when the Inspectorate addresses potential shortcomings to the school board and makes agreements on potential improvements. School boards often are not aware of the failure of their schools or of the decline in quality of their schools.</td>
</tr>
<tr>
<td>will intervene sooner when quality in these schools is declining.</td>
<td></td>
</tr>
<tr>
<td>1.3 If the Inspectorate intervenes sooner when quality of schools is</td>
<td></td>
</tr>
<tr>
<td>declining, then the Inspectorate or school boards will prevent these</td>
<td>Because: in most cases schools will improve when the Inspectorate addresses potential shortcomings to the school board and makes agreements on potential improvements. School boards often are not aware of the failure of their schools or of the decline in quality of their schools.</td>
</tr>
<tr>
<td>schools from becoming weak or underdeveloped.</td>
<td></td>
</tr>
<tr>
<td>1.4 If the Inspectorate or school boards prevent schools from becoming</td>
<td></td>
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<tr>
<td>weak or underdeveloped, then schools will continue to provide good</td>
<td></td>
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<tr>
<td>education.</td>
<td></td>
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</tbody>
</table>
Table A1.2 Assumptions on communication to school boards

2. If the Inspectorate of Education addresses inspection activities to school boards, then schools will provide good education.
   2.1 If the Inspectorate of Education addresses inspection activities to school boards, then school boards will improve their governance of schools (through implementing quality assurance, separate mechanisms for administration and internal supervision of schools and accountability to stakeholders).
       *Because*: the Inspectorate forces school boards to provide information about the quality of their school; they need a quality assurance system to provide this information.
       *Because*: changes in legislation oblige school boards to improve their governance of schools.
   2.2 If school boards improve their governance of schools, then they will take measures to prevent their schools from failing.
       *Because*: good governance of schools includes school boards implementing quality assurance of schools, separating administration and internal supervision of schools and accountability to stakeholders
       *Because*: internal supervisors will use governmental regulations, inspection standards and information to control school boards
   2.3 If school boards take measures to prevent their schools from failing, then these schools will provide good education.

   2.3 If school boards improve their governance of schools, then they will identify failing schools at an early stage.
   2.4 If school boards identify failing schools at an early stage, then they will take action to make sure these schools improve.
   2.5 If school boards take action to make sure failing schools improve, then these schools will (ultimately) provide good education.

Table A1.3 Assumptions on four yearly visits

3. If all schools are visited at least once every four years, then schools will provide good education.
   3.1 If all schools are visited at least once every four years, then the Inspectorate will have a reality check on the quality of education in schools and will prevent schools from having no inspection visit for a long period of time.
   3.2 If the Inspectorate provides for a reality check on the quality of education in schools and prevents schools from having no inspection visit for a long period of time, then schools will provide good education.
Table 5. Assumptions on publication of inspection information

<table>
<thead>
<tr>
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<th>Assumptions on publication of inspection information</th>
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</thead>
<tbody>
<tr>
<td>4.</td>
<td>If the Inspectorate of Education publishes information about quality of schools, then schools will provide good education.</td>
</tr>
<tr>
<td>4.1</td>
<td>If the Inspectorate of Education publishes information about quality of schools, then internal supervisors, stakeholders and school boards will use this information (e.g. to monitor and control schools, to choose schools or to motivate schools to improve).</td>
</tr>
<tr>
<td>4.2</td>
<td>If internal supervisors, stakeholders and school boards use the inspection information, then schools will be motivated to improve.</td>
</tr>
<tr>
<td>4.3</td>
<td>If schools are motivated to improve, then they will provide for good education.</td>
</tr>
</tbody>
</table>
Figures and tables

Figure 1. Main assumptions in program theory of Dutch school inspections