Effective School Improvement - Ingredients for Success The Results of an International Comparative Study of Best Practice Case Studies

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Abstract

Although school effectiveness research and school improvement efforts are often different or even opposing paradigms, they can be combined in Effective School Improvement (ESI) programs. In the project, best practice school improvement cases in 8 European countries were described and analysed using a scheme based different effectiveness and improvement theories. This analysis resulted in a framework for effective school improvement which includes the factors that might foster or hinder improvement. Finally, it is explained how the ESI-framework can be used in practice, policy and research.

1. Introduction: Research and practice in school improvement.

From the beginning, a major aim of the school effectiveness movement was to link theory and empirical research relating to educational effectiveness and the improvement of education. School effectiveness has its roots in research and theory (e.g. the work of Brookover, Beady, Flood & Schweitzer, 1979; Rutter, Maughan, Mortimore & Ouston, 1979), but also in educational practice and policy (Edmonds, 1979). School effectiveness research has attempted to find the factors of effective education that could be introduced or changed in education through school improvement.

Scepticism, however, has been expressed about the possibilities of a merger between school effectiveness and school improvement. Creemers and Reezigt (1997) argue that there are intrinsic differences between the school effectiveness tradition, which ultimately is a programme for research with its focus on theory and explanation, and the school improvement tradition, which is a programme for innovation focusing on change and problem-solving in educational practice.

At least in early stages, in school effectiveness circles it was expected that a more or less "simple" application of school effectiveness knowledge about "what works" in education would result in school improvement. In school improvement circles, this was seen as simplistic and mechanistic which would not work in schools. Schools have to design and invent their own solutions for specific problems and improvement in general. Nevertheless Creemers and Reezigt (1997) with others (e.g. Reynolds, Hopkins & Stoll, 1993) advocated further linkage between school effectiveness and school improvement, for their mutual benefit. School effectiveness research and theory can provide insights and knowledge to be used in school improvement. School improvement is a very powerful tool for the testing of theories. School improvement can also provide new insights and new possibilities for effective school factors, which can be analysed further in effective school research.

In recent years, there have been examples of productive co-operation between school effectiveness and school improvement, in which new ways of merging the two traditions/orientations have been attempted (see Gray et al, 1999; MacBeath & Mortimore, 2001; Reynolds & Stoll, 1996; Stoll & Fink, 1992, 1994, 1996; Stoll, Reynolds, Creemers & Hopkins, 1996; for an overview see Reynolds, Teddlie, Hopkins & Stringfield, 2000).

Until the Effective School Improvement (ESI) Project, however, the links had not been explored across countries. While sharing school improvement initiatives and projects between countries has been common at International Congress for School Effectiveness and Improvement (ICSEI) conferences since its inception in 1988, joint international projects have been less frequently undertaken, especially those attempting to understand if effective school improvement is a similar phenomenon in different countries and to draw out findings that might be applicable beyond country boundaries (see Mortimore et al, 2000 for one example). This was a key aim of the Effective School Improvement Project (ESI), a project running from 1998-2001, that drew together teams from eight European countries: Belgium; England; Finland; Greece; Italy; The Netherlands; Portugal; and Spain (Creemers and Hoeben, 1998). Another aim was to continue to establish stronger links between the two paradigms of school effectiveness and school improvement to help both profit from each other's strongest points.

2. The Effective School Improvement (ESI) project

The project Capacity for Change and Adaptation in the Case of Effective School Improvement (ESI), Framework Programme, was designed to investigate the relation between effectiveness and improvement in order to increase the possibility for schools to improve education. Drawing on the definition of improvement of Hopkins, Ainscow and West (1994), the concept of effective school improvement was defined as follows: Effective school improvement refers to planned educational change that enhances student learning outcomes as well as the school's capacity for managing change. The addition of the term "managing" emphasises the processes and activities that have to be carried out in school in order to achieve change/improvement. To evaluate effective school improvement, an effectiveness criterion is needed as well as an improvement criterion. The effectiveness criterion refers to student outcomes; this might be learning gain in the cognitive domain, but it might also be any other outcome that schools are supposed to have for students (Creemers, 1996). The effectiveness criterion is met by the answer to the question 'Does the school achieve better student outcomes'. The improvement criterion by the answer to the question 'Does the school manage change successfully' (Hoeben, 1998). The measures for

outcomes and the management of change can be different depending on the definition of the outcomes (for students) and improvement (for schools) (see section 3).

It is the final objective of the ESI project to develop a model and/or strategy for effective school improvement.

The Effectiveness School Improvement project consisted of three related research tasks, namely:

- 1. The analysis, evaluation and synthesis of theories that might be useful for effective school improvement.
- 2. The inventory, analysis and evaluation of effective school improvement programmes in different European countries.
- 3. The development of a (draft) model based on tasks 1 and 2.

The draft model was discussed at conferences of practitioners, policy-makers and researchers in each of the countries and the results were the input for a final meeting of the research teams, resulting in rejection of the idea of a model. Instead of a (prescriptive) model it was decided to develop a comprehensive framework for effective school improvement.

Theoretical analysis of effective school improvement

The theoretical analysis for useful insights for effective school improvement incorporated different points of view: (1) the integration of the school effectiveness and school improvement traditions; (2) the search for additional insights in other theoretical traditions such as: organisational theories, curriculum theories, behavioural theories, and theories of organisational learning and human resources management (Hoeben et al., 1998; Reezigt, 2000). These theories were selected based on the expectation that they could provide concepts and relations between concepts concerning the complex process of school improvement where educational issues (such as the curriculum) and the organisation (of schools) and behaviour of participants are at stake (Scheerens & Demeuse, 2005). The analysis resulted in an overview of factors that might be important for effective school improvement. These were used to develop a framework for the second research task: the evaluation of effective school improvement programmes in the participating countries. For a description of the results of this analysis, see Creemers and Reezigt (2005).

The evaluation of effective school improvement programmes

Key questions were outlined in the evaluation framework (see table 1), and each of the questions included a range of sub-themes that were investigated during the case studies.

Table 1: Key Questions in ESI Evaluation Framework

- 1. To what extent do the student outcomes provide evidence for the school's effectiveness in attaining its goals?
- 2. To what extent do the intermediate outcomes provide evidence for the attainment of the school's improvement goals?
- 3. To what extent do the students show increased engagement with their own learning and their learning environment?
- 4. To what extent does the curriculum in the classrooms contribute to the school's attainment of students' goals?
- 5. To what extent does the cycle of improvement planning, implementation, evaluation and feedback contribute to the school's attainment of its improvement goals?
- 6. To what extent does the school's curriculum where applicable contribute to the effectiveness of the classroom curriculum?
- 7. To what extent does the school's organisation contribute to the attainment of intermediate improvement goals and students' goals?
- 8. To what extent does parental choice and involvement contribute to the school's responsiveness and to its attainment of intermediate improvement goals and students' goals?
- 9. To what extent does the learning by the school organisation contribute to the school's management of change, i.e. to the attainment of the intermediate improvement goals?
- 10. To what extent do external change agents contribute to the school's attainment of intermediate improvement goals?
- 11. To what extent do the contextual characteristics allow for, stimulate or hinder ESI, i.e. the attainment of intermediate improvement goals and of the students' goals? For instance: to what extent does the national curriculum where applicable allow for, stimulate or hinder ESI?

The ESI project was based on several case studies of improvement programmes in each participating country. All ESI partners provided a number of programme descriptions (varying from 2 to 10 different descriptions) based on the evaluation framework. Researchers in five countries visited the schools involved in improvement programmes, while in three others, improvement programme data were reanalysed by the country team. Analysis was undertaken to find the factors promoting or hindering effective school improvement in each specific country, and information about the educational systems in each country was used to contextualise each country's findings. Case studies were written of each programme (de Jong, 2000), and country teams were paired up to analyse similarities and differences between the programmes, using a rating instrument (Stoll et al, 2002). Next to the factors which resulted from the analysis of the theories new factors came up in the description and the analysis of the case studies.

We also explored whether the factors worked in the same way in different countries. This was important for constructing an ESI model, especially if they pointed to factors different from those derived from the theoretical analyses and also because they helped the research team to understand how the factors worked in practice.

Similarities and differences in the improvement process

The case studies analysis resulted in each ESI team describing factors that appeared to promote or hinder effective school improvement. In our analysis we found a number of similarities and differences across the improvement process in different countries (for further information, see Wikely et al., 2005).

The main findings are summarised in Table 2 at the three levels (context, school, and classroom/teacher)¹. The factors are ordered according to the number of countries that have mentioned them in the case studies as influential for ESI. Sometimes the absence of a certain factor is seen as hindering ESI, for example, a school principal who does not act as an educational leader (in The Netherlands). In this case, 'leadership' is depicted in Table 2 as an ESI promoting factor. The factors derived from theories and the factors derived from the case studies analysis show considerable overlap. The effects that factors are supposed to exert are also in accordance with the theoretical expectancies, with the exception of market mechanisms. New factors most often referred to practical constraints that may promote or hinder ESI efforts. Factors promoting ESI in one country were generally seen to promote ESI in other countries. Only three factors did not lead to similar judgements across all countries. These were:

- the role of external agents (seen as important in most countries, but not in Spain);
- the role of parents and the community in improvement efforts (seen as important in two countries, but not in Spain); and
- the complexity of the improvement effort. (While Spain found a comprehensive innovation for schoolwide improvement to be more successful, the Dutch evidence was that smaller improvement programmes with a clear focus in one or two educational domains e.g. literacy were more likely to lead to success.)

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¹ For a more detailed description, see Reezigt (2001).

Table 2: ESI factors for effective school improvement from the case studies analysis

	T	N	F	В	E	S	P	Ι	G
Context level factors									
External agents involved in improvement programmes	Yes	+		+	+	0	+	+	+
External pressure to start improvement		+		+	+	+	+	+	
External evaluation of schools	Yes	+		+	+			+	+
Market mechanisms	Yes			-	-				
Decentralisation of decisions (content, teaching practice)									+
School level factors									
Positive attitude towards change	Yes	+	+	+	+	+		+	_
School culture, shared values, vision on education, mission	Yes	+	+	+	+	+			
School organisation that facilitates improvement (time etc.)					+	+	+	+	+
Leadership of the principal (or other staff members)	Yes	+	+		+	+			
Staff instability		-				_	-		-
Internal evaluation (assessment of students and teachers)	Yes	+	+		+				+
Goal setting (student outcomes and/or intermediate goals) Parental/community involvement in improvement programmes	Yes	+	+		+	0	+	+	
Adequate planning of the improvement process	Yes		+			+	ı.		
Improvement embedded in overall school development	105	+			+				
Getting ready for change/tackle visible issues first				+	+				
Complexity/comprehensiveness of the improvement		_				+			
programme									
Self-regulative improvement cycle	Yes					+			
Student participation in improvement efforts								+	
Classroom/Teacher level factors									
Teacher motivation and involvement/participation in processes and decisions	Yes		+	+	+	+		+	+
Teacher collaboration (in school, across schools)	Yes		+		+		+	+	
Feedback on teacher behaviour	100	+	+		•		·		
Teacher training/staff development					+	+			
Implementation of essential elements of curricula/innovations	Yes				+		+		

Key:

T = is the factor found in theory? (Yes = there is support by validated theory; blank = factor found in the analysis of the case studies but not (yet) found in theory)

+ = positive influence on ESI - = negative influence on ESI

0 = no influence on ESI

T = also found to be important in theoretical part of project

 $(N = the\ Netherlands;\ F = Finland;\ B = Belgium;\ E = England;$

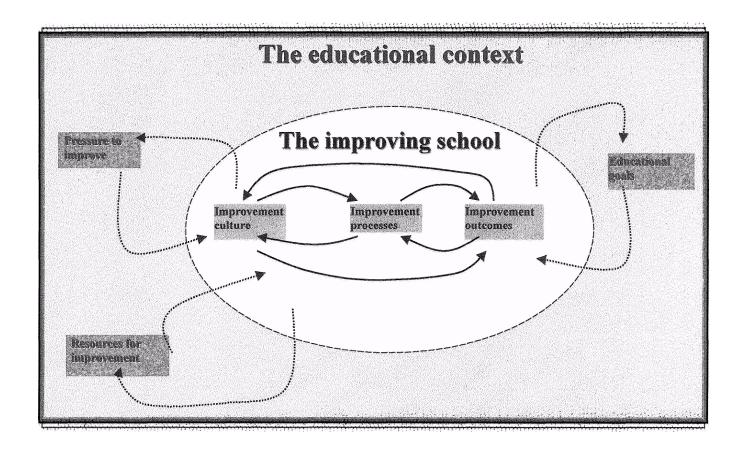
S = Spain; P = Portugal; I = Italy; G = Greece)

3. The Comprehensive Framework of Effective School Improvement

Based on the results of the theoretical and empirical analyses the original draft model was revised several times after discussion meetings with experts and practitioners.

A final three-day meeting of the research teams explored these issues and led to the development of a comprehensive framework for effective school improvement (see Figure 1).

Figure 1 Comprehensive framework for effective school improvement



The comprehensive framework shows that an improving school is firmly embedded in the educational context of a country. Schools and school improvement can never be studied apart from their educational context. This is clearly indicated by the interrupted line around the improving school which is central in the framework. As such, the improving school is always confronted with the main contextual concepts of pressure to improve resources for improvement and educational goals, that exist in the educational context. Even when schools are free to decide about their improvement outcomes, these will always have to be in line with the wider educational goals determined in that context (Stoll, Creemers & Reezigt, in press).

We concluded that the importance of the educational context appears most prominently in internationally comparative studies such as the ESI project, but should also be incorporated in all within-country studies of effective school improvement (Reezigt, 2001).

Context factors

The research identified three factors relating to context (see Lagerweij, 2001; Sun, 2003). At the start of improvement processes, the pressure to improve is the most important contextual factor. Resources are the second context factor as school improvement can only take place within the resource constraint of any given context. Finally, the improvement outcomes for an individual school will always have to be in line with the educational goals set by the context (see table 3).

Table 3 Factors within the main contextual concepts of the framework

Pressure to improve	Resources/support for improvement	Educational goals		
 Market mechanisms External evaluation and accountability External agents Participation of society in education/societal changes/educational policies which stimulate change 	- Autonomy granted to schools - Financial resources and favourable daily working conditions - Local support	- Formal educational goals in terms of student outcomes		

Pressure to improve

Ideally, schools (as organisational units) define their own improvement needs, design their improvement efforts and evaluate them as to whether their needs have been met. Theories about schools as learning organisations often depict this kind of improvement (i.e. learning) processes. In practice however, schools often need some form of external pressure to start improving. This pressure can be beneficial (i.e. a positive influence) for schools able to do that, but it can be

damaging (i.e. a negative influence) for schools that do not have the skills to initiate change, especially if they do not receive adequate support. The research identified four factors which constitute pressure to improve:

- market mechanisms,
- external evaluation and accountability,
- external agents,
- the participation of society in education and societal changes.

Resources

In order to make school improvement effective, the resources made available by the educational context are very important. Without these, schools are likely to experience difficulties in their improvement efforts. Resources can be material, but there are also other resources (or support) that may be essential for effective school improvement. The identified factors that together constitute the concept of resources are:

- autonomy granted to schools,
- financial resources and favourable daily working conditions for teachers and schools,
- local support.

Educational goals

Although schools tend to set specific goals for improvement, the context generally sets the wider educational goals and all improvement efforts have to fit within with these. For some countries these nationally set goals form a broad framework whereas for others they are detailed and prescriptive.

For example, in the Netherlands, core goals for each school subject are defined for primary and secondary education. These give expected student outcomes and occasionally ways of teaching. The government in the United Kingdom sets national-, district- and school-level targets in core subject areas. Greece has detailed national goals for all schools, elaborated in a national curriculum and centrally prescribed textbooks for school subjects.

School factors

The central place of the school in the comprehensive framework is based on effectiveness and improvement theories and research, which have shown that effective improvement requires school level processes (see also various publications of the International School Improvement Project, (ISIP), e.g., Van Velzen et al, 1985; Cuban, 1998; Hopkins, Ainscow & West, 1994;

Teddlie & Reynolds, 2000). Teachers are considered an essential lever of change, because change is explicit in their classrooms and their daily practices, but for effective school improvement individual teacher initiatives are not enough. Teachers can succeed in achieving major changes in their classrooms with strong effects on student outcomes, but they cannot be expected to have a lasting impact on the school as an organisation. Improvement efforts initiated by one teacher will generally disappear (for example when the teacher changes schools) unless the school as an organisation sustains the efforts. This important notion is problematic for educational systems that have no strong tradition of school-level improvement, even when teacher improvement activities may occur.

However, we are not arguing that all improvement activities necessarily concern all members of a school staff. In practice, this will not happen very often, or it will only happen in small schools. Improvement efforts in secondary education or in larger primary schools often concern specific departments or other subsets of school staff. In that case, we assume that the factors for the departments or groups of teachers will be essentially the same as the factors that we have depicted in the framework for the school. For reasons of convenience however, we will use the term 'school level'. Implications for teachers will be mentioned from this perspective.

At the school level the research in the ESI project identified three concepts:

- improvement culture,
- improvement processes, and
- improvement outcomes.

In the theory but especially in the case studies, these concepts appear to be the key elements of the improving school. The culture can be viewed as the background against which processes are taking place and the outcomes are the goals of those processes. All three are inter-related and constantly influence each other. The culture influences not only the choice of processes, but also the choice of outcomes. The chosen outcomes will influence the choice of processes but their success or failure can also change the culture of the school. The outcomes will also depend on the successful implementation of the processes. These inter-relationships highlight the cyclical nature of effective school improvement that is one that has no clearly marked beginning or end. The individual factors (see Table 4) therefore have to be seen within the overarching framework of these concepts (improvement culture, processes, and outcomes).

Table 4Factors within the main school concepts of the framework

Improvement culture	Improvement processes	Improvement outcomes	
 Internal pressure to import of the components of the component of the components of the components of the component of the components of the co	needs - Diagnosis of improvement needs - Diagnosis of improvement needs - Phrasing of detailed improvement goals - Planning of improvement activities - Implementation of improvement plans ement, vation - Reflection	 Changes in the quality of the school Changes in the quality of the teachers Changes in the quality of student outcomes (knowledge, skills, and attitudes) 	

Improvement culture

Schools with a favourable culture for improvement will start and continue improvement efforts more easily than schools that constantly try to avoid changes and are fearful of improvement. The improvement culture can be considered the foundation of all improvement processes in the school. The research identified nine factors as contributing to the improvement culture of a school:

- internal pressure to improve
- autonomy used by schools
- shared vision
- willingness to become a learning organisation
- improvement history
- ownership
- leadership
- staff stability
- time

Improvement processes

Some schools perceive improvement as a discrete event. Whenever a problem arises, it is addressed, but after that business goes on as usual. These schools hold a static view of improvement. More dynamic schools will consider improvement as an ongoing process and as a

part of everyday life. Improvement efforts are continuous, cyclical by nature, and embedded in a wider process of overall school development and might be referred to as such.

Although improvement processes will rarely move neatly from one phase to the next, there are clearly identifiable stages in all successful improvement processes. These stages may overlap or return repeatedly before the full cycle of improvement is at its end. Planning for example will often not be a one-off activity that takes place relatively early in the improvement process, but plans will be constantly returned to and adapted on a continuous basis. This is especially so for complex improvement efforts that involve many staff members.

The research identified five factors/stages of the improvement process:

- assessment of improvement needs
- diagnosis of improvement needs and setting of detailed goals
- planning of improvement activities
- implementation
- evaluation and reflection

Improvement outcomes

Improvement efforts ideally focus on a clear set of goals that can be achieved in a certain period of time. When goals are vague or unclear, improvement efforts are more likely to fail. The goals for effective school improvement should be stated in terms of student outcomes (the effectiveness criteria) or in terms of school and teacher factors that are key influences on student outcomes (the improvement criteria). This means that schools that want to improve pursue two types of goals (Hopkins, 1995).

- 1. Goals that are explicitly written in terms of student outcomes. These can reflect a wide range of knowledge, skills, and attitudes and are not necessarily narrowed down to be based purely on cognitive skills achievement. For example, to enhance the student role in the learning processes would be a valid improvement goal.
- 2. Goals that are focused on change. This type of improvement goal may include changes in the school organisation, teacher behaviour, or the materials used by students. Student outcomes still are the ultimate goal but the improvement efforts can also be judged by the bringing about of change that will enhance these outcomes.

In the Netherlands, goals in terms of student outcomes are becoming more common in improvement effort and in Finland a focus on outcomes is often stressed too. Without this, improvement processes can easily become entertainment and seeking of pleasure during school hours. The role of students has to be clear, observable and important in all teaching and learning processes.

4. The use of the ESI framework

The function of the ESI framework

The comprehensive framework for effective school improvement is neither fully descriptive, nor fully prescriptive in character. For example, the central place of the school in the framework is based on effectiveness and improvement theories and our empirical research that has shown that effective improvement requires school level processes. However, the framework does not dictate what those processes might be in any individual school. Although the importance of teachers and their work in classrooms is certainly acknowledged, individual teachers are generally not considered to be the main lever of change for effective whole school improvement. However, the framework is prescriptive in its focus on student outcomes as the primary goal. For improvement to be effective there must always be a link, at least at the conceptual level, with student outcomes however they may be defined.

A was stated earlier, the framework does not pretend to present totally new guidelines or concepts. The innovation that it does represent is that it brings together ideas and concepts from different theories, builds on findings in improvement studies, and tries to integrate them in a coherent way. The framework was developed by research teams from a group of countries with strongly varying educational histories and policies. The discussion of the framework in country conferences showed that it can be of actual use in different settings, because the concepts in the framework and their interrelationships can be interpreted in a way which fits the specific educational context in any one country.

The comprehensive framework aims to be of use to three different audiences: practitioners, researchers and policy-makers.

- For practitioners, the framework is intended to be useful in the design, planning and implementation of school improvement. The framework gives an overview of many factors that may promote or hinder effective school improvement and as such it can be used as a way of exploring educational practice. However, schools must interpret the factors in the

framework within their own situation and tailor them to their own needs. The framework can never prescribe how a specific school in a specific country should act in order to achieve effective school improvement but it can help to indicate the starting points or issues for reflection.

- For researchers, the framework is especially important for further research in the field of effective school improvement. It can be used to generate hypotheses and to select variables that should be investigated and further operationalised. It presents an overview of relevant variables but does not specify criteria (such as how often school evaluation should take place to have an impact on improvement outcomes). The international dimension of the framework, reflected in the importance given to the context factors, provides insight in the influences of these factors across countries but also within countries. In traditional improvement research, the educational context is often excluded. Its importance is rarely acknowledged or analysed.
- Policy-makers too, have to be aware that the framework can never be used as a recipe for effective school improvement or as a ready-made toolbox for the implementation of improvement in schools. The framework merely clarifies which factors must be taken into consideration in the planning of improvement processes in schools. It also shows which conditions must be taken into account, both at the context and the school levels. The framework may help policy-makers to see how important school improvement is for student outcomes or how important the school is as a meaningful unit for improvement. Also, the framework shows policy-makers how strongly schools are influenced by the context. This implies that adequate context measures will often be needed in improvement efforts. Leaving schools to improve on their own will not often be a realistic option.

We cannot state strongly enough that the framework will always need interpretation whenever it is used, whether for practice, research, or policy. Keeping this constraint in mind, the framework may have the following functions for practitioners, researchers, and policy-makers.

-It can start a debate and can contribute to ongoing discussions about effective school

- -It can introduce new arguments into the debate and thereby assist in decision-making,
- -It can act as an eye-opener about improvement factors that are different in different countries.
- -It can be used as a tool for the planning, designing, implementing, evaluating, and reflecting on improvement projects and research on effective school improvement,
- -It can be used as an input in teacher training.

improvement.

The exact functions of the framework will, however, always be dependent on the context in which it is used and the people who use it. Despite many similarities, effective school improvement in these eight European countries is subtly, and sometimes not so subtly, different.

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