

SCHOOL IMPROVEMENT THROUGH AN EVIDENCE- BASED AND THEORY-DRIVEN APPROACH

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INTRODUCTION

- It is important to start with a clear understanding of the destination and **how improvement of quality in education will be achieved.**
- **Commitment to collaborative work** needs to be established but people have different perceptions of change.
- It is difficult to reach consensus among the participants in school reform efforts, albeit this may be crucial in its success.
- ***Student learning*** should be considered as the ultimate aim of any school improvement effort.



INTRODUCTION

- **Ownership** and **individual motivation** should be established but this cannot be done on the expenses of directing a school improvement project away from its ultimate aim.
- Considering **student learning** as the main function of the school and **as the ultimate aim of school improvement**.
- **A clear understanding of factors at teacher and school level** that should be addressed in order to improve learning must be established.



INTRODUCTION

○ Assumptions:

1. **Empirical evidence** about a theory on educational effectiveness can help school stakeholders to understand **why specific factors are associated with student achievement**.
 2. Schools should identify **improvement priorities** (through an initial measure) and **develop strategies and action plans** that address those specific factors that function less well than others
- **A dynamic approach to school improvement has been established.** The theoretical framework of this approach is the **dynamic model of educational effectiveness**.



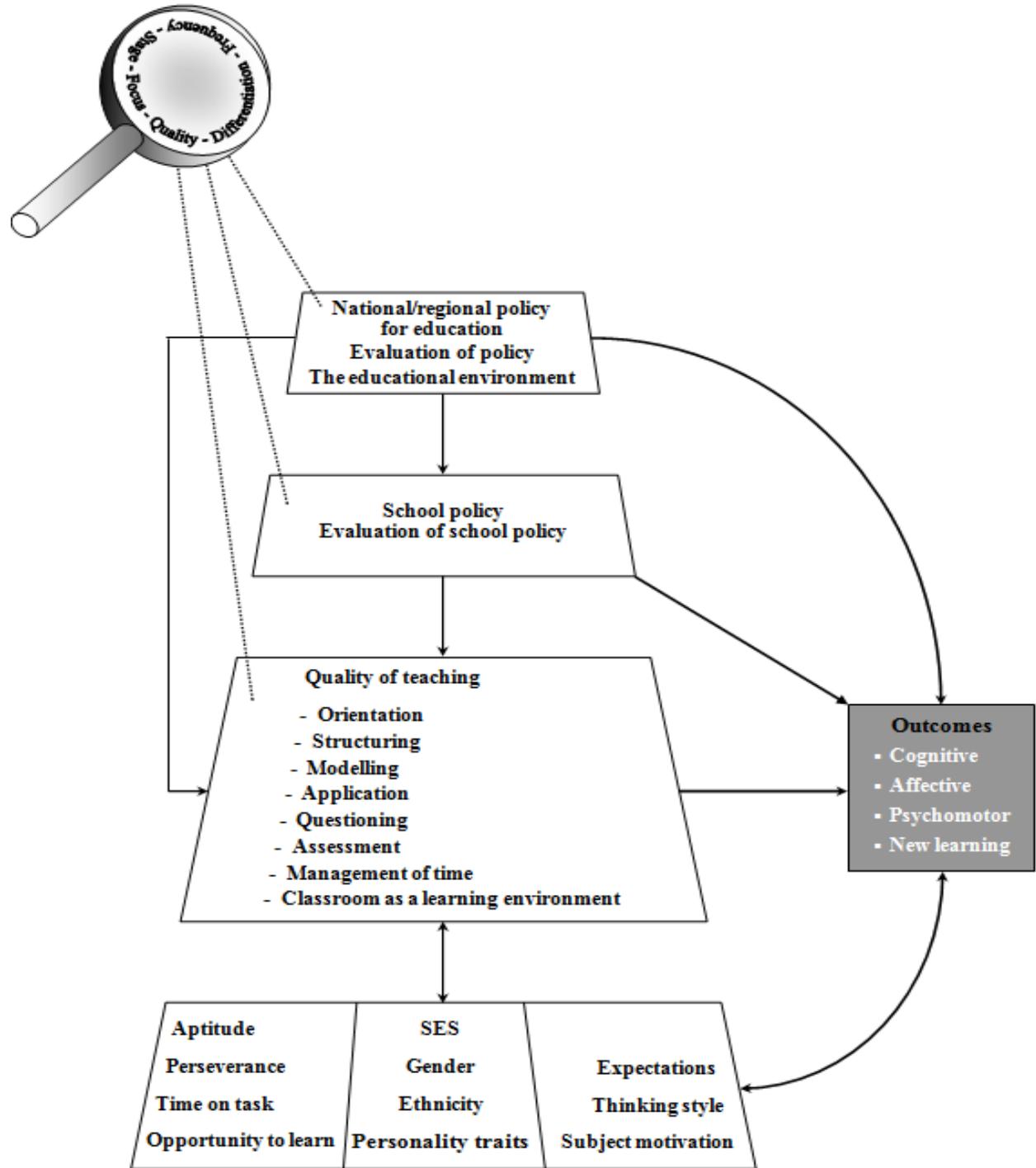
THE DYNAMIC MODEL OF EDUCATIONAL EFFECTIVENESS

The essential characteristics of the dynamic model

- The model is **multilevel in nature** and refers to factors operating at **four levels** (*see Figure 1*).
- **Teaching and learning situation** is emphasised and the roles of the two main actors are analysed.
- **School-level factors** influence the teaching-learning situation by developing and evaluating the school policy on teaching and the policy on creating the School Learning Environment (SLE).
- **The system level** refers to the influence of the educational system through a more formal way, especially through developing and evaluating the educational policy at the national/regional level.



**FIGURE 1:
THE
DYNAMIC
MODEL OF
EDUCATION
AL
EFFECTIVENESS**



THE DYNAMIC MODEL OF EDUCATIONAL EFFECTIVENESS

- Different **dimensions** for measuring the functioning of effectiveness factors are used. Both **quantitative and qualitative characteristics** of factors are measured.
- **Teacher factors** refer to teachers' instructional role and were found to be **associated with student outcomes**.
- The eight classroom factors are as follows:
 - *orientation,*
 - *structuring,*
 - *questioning,*
 - *teaching-modelling,*
 - *applications,*
 - *management of time,*
 - *teacher role in making classroom a learning environment,* and
 - *classroom assessment.*



THE DYNAMIC MODEL OF EDUCATIONAL EFFECTIVENESS

- **School factors:** Emphasis is given to two main aspects of the school policy which affect learning at both the level of teachers and students:
 - a) **school policy for teaching**
 - b) **school policy for creating a learning environment at school.**
- The factors concerned with the school policy mainly refer to the actions taken by the school to help teachers and other stakeholders have ***a clear understanding*** of what is expected from them to do.
- ***Support*** offered to teachers and other stakeholders to implement the school policy is also an aspect of these two overarching factors.
- Some supportive material for the validity of the dynamic model has been provided (*see Table 1*).



TABLE 1. EMPIRICAL EVIDENCE SUPPORTING THE MAIN ASSUMPTIONS OF THE DYNAMIC MODEL EMERGED FROM EMPIRICAL STUDIES AND META-ANALYSES

Assumptions of the dynamic model	Studies	Meta-analyses
1. Multilevel in nature	All	All
2. Five dimensions can be used to measure		
a) teacher factors	1, 2, 4, 5	
b) school factors	1, 3, 4	1
3. Impact of teacher factors on learning outcomes	1, 2, 4, 5, 6	2
4. Impact of school factors on learning outcomes	1, 3, 4, 6	1
5. Situational character of school factors	1	
6. Relations among factors operating at the same level: stages of effective teaching	1, 2, 5, 6	2
7. Changes in the functioning of school factors predict changes in the effectiveness status of schools	3	
<i>Negative results in relation to any assumption</i>	None	None

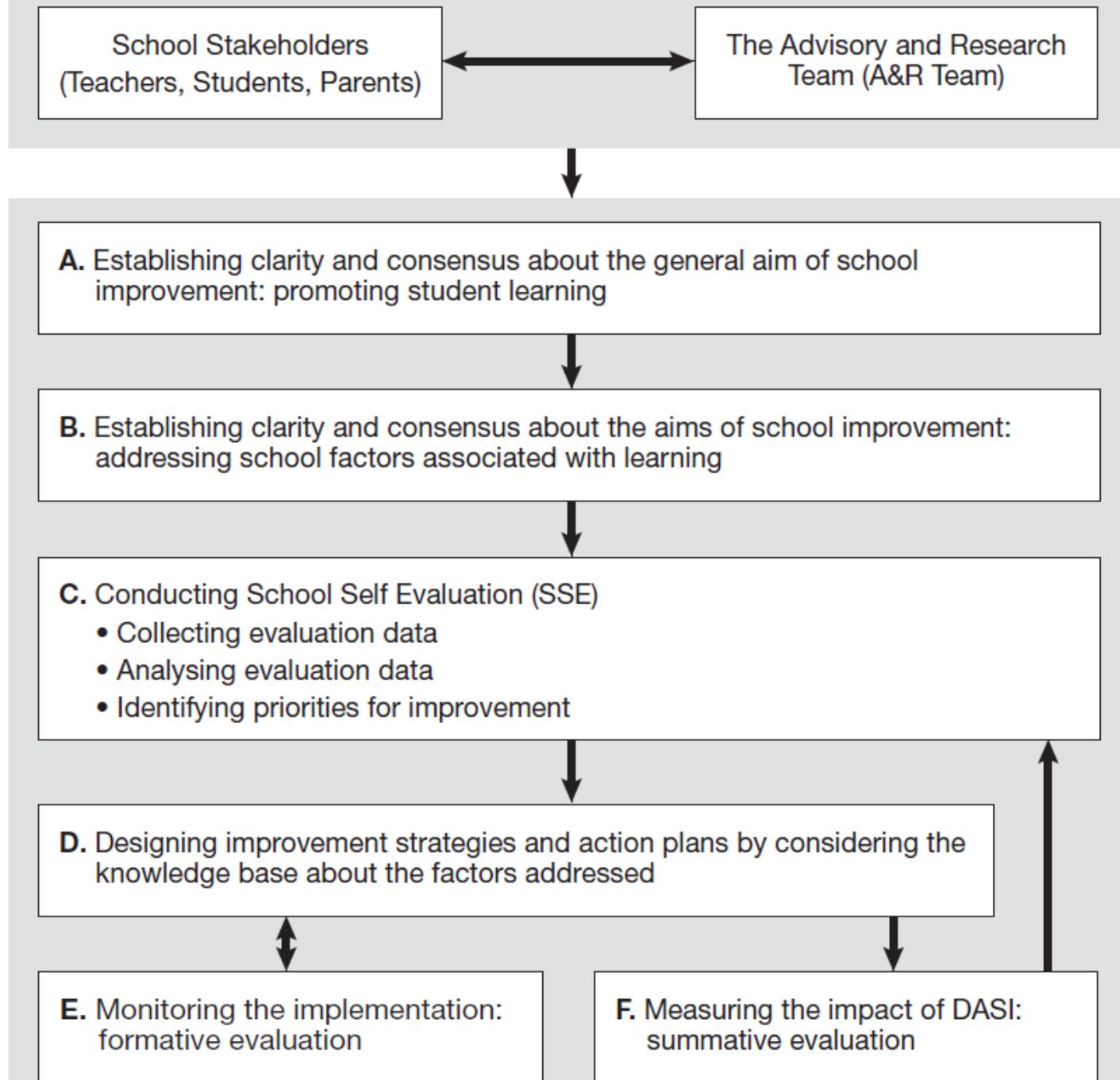
THE DYNAMIC APPROACH TO SCHOOL IMPROVEMENT

A. Main features

- The **DASI** has its own theoretical framework which refers to **school factors** that need to be considered in introducing a change.
- School stakeholders are those who take decisions on which improvement actions and tasks should be carried out.
- The ***Advisory and Research Team (A&RTeam)*** is expected to share its expertise and knowledge with practitioners and help them develop **strategies and action plans** that are in line with the knowledge-base of EER.
- **DASI** emphasizes **the role of school evaluation** (especially its formative function) in improving the effectiveness status of the school.



**FIGURE 2:
THE
DYNAMIC
APPROACH
TO SCHOOL
IMPROVEMENT**



THE DYNAMIC APPROACH TO SCHOOL IMPROVEMENT

B. Main Steps (see also Figure 2)

1. *Establishing clarity and consensus about the general aims of school improvement: considering student learning as the main function of the school*
2. *Establishing clarity and consensus about the aims of school improvement by addressing school factors which influence learning and teaching*



THE DYNAMIC APPROACH TO SCHOOL IMPROVEMENT

3. *Collecting evaluation data and identifying priorities for improvement*

- Drawing on the expertise of the A&R Team, analysis of the data can be conducted and its results will help school stakeholders **identify priorities for improving the functioning of specific factors and/or grouping of factors.**
- The improvement area has to be announced to the whole school community and comments/reactions should be considered in defining the area in a way that **helps not only the teachers but also parents and students understand the factors that are addressed.**



THE DYNAMIC APPROACH TO SCHOOL IMPROVEMENT

4. *Designing school improvement strategies and action plans by considering the available knowledge-base about the factor(s) addressed*

- Members of the A&R Team share their expertise and knowledge with school stakeholders, providing additional input to existing ideas, experiences and knowledge.
- Effective policies are not only those which are clear to the stakeholders but also **take into account the ability of the stakeholders** to implement the policy.
- The final **decisions are taken by the school**, as development of action plans does not only require putting into practice what is available in the literature, but also adopting the guidelines to the needs of the stakeholders of each school.



THE DYNAMIC APPROACH TO SCHOOL IMPROVEMENT

5. *Monitoring the implementation of the improvement project through establishing formative evaluation mechanisms*

- School stakeholders develop **internal evaluation mechanisms** to monitor the progress of their improvement efforts.
- The role of the A&RTeam is important, as their expertise in conducting evaluation is shared with school stakeholders.
- School stakeholders should be **directly involved in conducting formative evaluation.**
- **Exchange of ideas and experiences** between stakeholders and the A&RTeam may help school stakeholders agree on how to improve their action plans.



THE DYNAMIC APPROACH TO SCHOOL IMPROVEMENT

6. *Conduct a summative evaluation to measure the impact of DASI*

- School stakeholders (with the support of the A&R Team) measure the **impact of their improvement efforts** upon the **improvement of the functioning of school factors** and upon the **learning outcomes** (i.e. the intermediate and ultimate aims of improvement).
- Positive findings are expected to increase the commitment of a school to the **DASI**.
- **Summative evaluation** may help school stakeholders decide whether the factor(s) addressed have been substantially improved, and resultantly if a **new priority for improvement** and **new action plans** need to be developed.



THE DYNAMIC APPROACH TO SCHOOL IMPROVEMENT

- c. **Investigating the impact of DASI upon student achievement**
- o **Four experimental studies** revealed that DASI had a stronger impact on learning outcomes than the participatory approach to teacher and school improvement which gives emphasis to professional experiences (see Table 2).



TABLE 2. EXPERIMENTAL STUDIES INVESTIGATING THE IMPACT OF USING DASI RATHER THAN PARTICIPATORY APPROACHES THAT ARE BASED ON PRACTITIONER’S EXPERTISE

Area of investigation	Impact on factors	Ultimate aims
1. Using DASI to establish school self evaluation mechanisms in primary schools (n=60)	Not examined since schools had to deal with different improvement areas	DASI had an impact on student achievement
2. Using DASI rather than the HA to offer INSET to primary teachers (n=130)	Only teachers employing DASI managed to improve their teaching skills	DASI had an impact on student achievement
3. Integrating DASI with research on bullying to help schools (n=79) in five European countries to establish strategies to face and reduce bullying	DASI had an impact on school factors	DASI had an impact on reducing bullying
4. Using DASI rather than the CBA to offer INSET course on assessment (n=240)	DASI had a stronger impact than CBA on improving assessment skills of teachers at stages 2, 3 and 4	DASI had an impact on student achievement

CONCLUSIONS

- **Empirical support to the main assumptions of the dynamic model** and the importance of teacher and school factors has been provided.
- By taking into account the dynamic model, an **evidence-based and theory-driven approach** to school improvement has been promoted.
- **DASI** can be used for establishing **improvement projects** both at the **teacher and at the school level**.
- Projects investigating the impact of DASI were conducted in **different educational systems and contexts**.



CONCLUSIONS

- **DASI** can be applied in various situations by different stakeholders of education such as **teachers, school advisors, policy-makers, and researchers** as long as the different stakeholders accept the value assumptions of the approach.
- The **experimental studies** can be seen as starting points for schools to develop **strategies and actions for other challenges and problems** they might face in the future.
- We should establish **networks in different countries** of academics, researchers, policy makers, and professionals in schools interested to make use of **DASI for promoting quality in education.**



**Thank you for your
attention!**

