Do Different Types of School Inspection in Germany Have an Impact on School Improvement?

Odette Selders & Oliver Böhm-Kasper

ISI-TL symposium, Theme A: Different Approaches to Inspection
Outline

1. School inspection in Germany and its empirical research
2. Research project: „School inspection – Its role as a mechanism for stimulating school development, and the conditions for its implementation at individual school level“
   - Theoretical framework about the impact of school inspection in dependency of the features of school inspection and school features
   - Research design
   - Commonalities and differences of school inspection in Baden-Württemberg, Mecklenburg-West Pomerania, Lower Saxony & Thuringia
3. Empirical findings
4. Summary & Discussion
School inspection

• School inspection takes place as an evaluation of individual schools → intention of evoking school development processes

• School inspection procedures are standardized and based on data (though represented in varying degrees) → comparison of the evaluation results between individual schools with predefined norms → based on a public orientation-framework for school quality (normative approach)
School inspection in Germany and its empirical research

- Introduction of school inspection in all 16 German federal states since 2004
- Equivalent framework, but federal state specific characteristics
- Gradual increase of empirical research on the (federal state specific) effects of school inspection on school development
- Only few studies in German-speaking countries (cf. e.g. Böttcher, Keune & Neiwert 2010; Dedering & Müller 2011; Gärtner, Husemann & Pant 2009; Gärtner & Wurster 2009; Huber 2008; Sommer 2011)
- Framework program for Promoting Empirical Education Research by the Federal Ministry of Education and Research (BMBF)
  → Focal Area of Research – Evidence Based Governance in the German Educational System (SteBis)
  → Project: School inspection – Its role as a mechanism for stimulating school development, and the conditions for its implementation at individual school level
BMBF research project (collaborative project):

School inspection – Its role as a mechanism for stimulating school development, and the conditions for its implementation at individual school level
Theoretical framework about the impact of school inspection (Ehren & Visscher 2006)

External impulses and support
- Pressure to improve
- Resources and assistance

Features of school inspection
- Degree of reciprocity and trust in the relationships
- Communication style
- Nature of the feedback
- Preventing undesirable behavior of schools

Schools' reactions
Intended responses
- Acceptance
- Genuine improvement actions

Unintended responses
- Rejection
- Tunnel vision
- Myopia
- Measure fixation
- Ossification
- Misrepresentation

(Side-)effects
Intended effects
- Improved student achievement
- Pre-conditions for improved student achievement

Side-effects
- Isomorphism
- Performance paradox
- Dependence
- Stigmatization of schools

School features
- Attitude towards change
- Innovation capacity
Research design

• Eligibility period: 2010 – 2013; Bielefeld University

• Quantitative research in four federal states:
  • Lower Saxony (school inspection)
  • Baden-Württemberg (external evaluation)
  • Mecklenburg-West Pomerania (external evaluation)
  • Thuringia (external evaluation)

• Standardized questioning (online comprehensive survey) of all head teachers from general-education schools


• Research questions:
  • Which systematic influence does school inspection and its timely proximity have on intensity and orientation from school development processes at the individual school level?
  • Do federal state specific differences in school inspection procedures cause quantitatively measurable effects in the schools’ processing techniques?
## Scheme federal state selection

<table>
<thead>
<tr>
<th></th>
<th>Eastern German federal states</th>
<th>Western German federal states</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controlling-type</strong></td>
<td>Mecklenburg-West Pomerania</td>
<td>Lower Saxony</td>
</tr>
<tr>
<td><strong>Peer-review-type</strong></td>
<td>Thuringia</td>
<td>Baden-Württemberg</td>
</tr>
</tbody>
</table>

### Common features
- Documentary analysis
- School visitation
- Teacher interviews
- Feedback/report

### Differences
- Standardization
- Target-performance comparison
- Consequences
  - Handling of the inspection report
  - Follow-up inspection
  - Staff changes

Kotthoff & Böttcher (2010)
Empirical findings
### Sample (for primary and upper secondary schools)

<table>
<thead>
<tr>
<th>Federal state</th>
<th>Primary schools</th>
<th>Upper secondary schools</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>195 / 67 (2.433)</td>
<td>43 / 11 (378)</td>
<td>238 / 78 (2.811)</td>
</tr>
<tr>
<td>Lower Saxony</td>
<td>484 / 441 (1.765)</td>
<td>72 / 71 (221)</td>
<td>556 / 512 (1.986)</td>
</tr>
<tr>
<td>Mecklenburg-West Pomerania</td>
<td>11 / 9 (215)</td>
<td>7 / 7 (41)</td>
<td>18 / 16 (256)</td>
</tr>
<tr>
<td>Thuringia</td>
<td>33 / 24 (431)</td>
<td>3 / 2 (85)</td>
<td>36 / 26 (516)</td>
</tr>
<tr>
<td><strong>total</strong></td>
<td>723 / 541</td>
<td>125 / 91</td>
<td>848 / 632</td>
</tr>
</tbody>
</table>
Comparative view: Acceptance of School Inspection

Items of the scale „Acceptance of School Inspection“:

School inspections …
… should be conducted regularly.
… are very important for the work at the schools.
… only lead to unrest in the schools. (-)
… create more problems than they solve. (-)
… contribute that the schools make a greater effort
… are of little use for my real work as headteacher. (-)

(response format: 1 = strongly disagree – 4 = strongly agree)

Differences between Lower Saxony and Baden-Wuerttemberg: t\(_{(570)}\)=-1.80, n.s.
Comparative view: Negative Side Effects

Items of the scale „Negative Side Effects“:

- Groups involved in the school activities got rather discouraged by the school inspection.
- The school inspection caused additional pressures/conflicts.
- The school inspection lead to additional burdens.
- The impulses and effects triggered by the school inspection fall flat fast.
- The effort involved in school inspection is disproportionate to the benefit.
- School inspections lead to a mere fixation of the school towards good results.

(response format: 1 = strongly disagree – 4 = strongly agree)

Differences between Lower Saxony and Baden-Wuerttemberg: \( t_{(560)} = 3.47, \alpha < .05, d = .43 \)
Comparative view: Intended Effects

Looking back at the time after the school inspection, in which of the following areas do you see significant improvements at the school:

- Students’ assessment
- Students’ social skills
- Students’ effort
- Staff’s job satisfaction
- Collegiality
- Teaching skills
- Teacher’s social skills
- Social climate

(response format: 1 = strongly disagree – 4 = strongly agree)

Differences between Lower Saxony and Baden-Wuerttemberg: t(546) = .64, n.s.)
Intended effects over time

Looking back at the time after the school inspection, in which of the following areas do you see significant improvements at the school:

- Students` assessment
- Students` social skills
- Students` effort
- Staff`s job satisfaction
- Collegiality
- Teaching skills
- Teacher`s social skills
- Social climate

(response format: 1 = strongly disagree – 4 = strongly agree)

Differences between Periods of Inspection: $F_{(579, 2)} = .57$, n.s.)
Multilevel Analysis
(schools’ reactions and intended effects)

Multilevel-Regression* on School Reactions and Effects of School Inspection
(Individual level: Head teachers; Context level: Federal states)

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Acceptance of SI</th>
<th></th>
<th>Negative Side Effects</th>
<th></th>
<th>Intended Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>p</td>
<td>β</td>
<td>p</td>
<td>β</td>
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<tr>
<td>Features of school inspection</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Objectives I: School &amp; Teaching</td>
<td>.34</td>
<td>.000</td>
<td>-.23</td>
<td>.000</td>
<td>.20</td>
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<tr>
<td>development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Objectives II: Competition between</td>
<td>-.04</td>
<td>n.s.</td>
<td>.09</td>
<td>.002</td>
<td>.02</td>
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<tr>
<td>schools</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Communication style</td>
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<td>n.s.</td>
<td>-.07</td>
<td>n.s.</td>
<td>.03</td>
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<tr>
<td>Quality of SI</td>
<td>.16</td>
<td>.000</td>
<td>-.12</td>
<td>.040</td>
<td>.09</td>
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<tr>
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<td>.000</td>
<td>-.31</td>
<td>.000</td>
<td>.24</td>
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<tr>
<td>SI-Feedback</td>
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<td>n.s.</td>
<td>.02</td>
<td>n.s.</td>
<td>-.06</td>
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<tr>
<td>External impulses and support</td>
<td></td>
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<td></td>
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<tr>
<td>Assistance I</td>
<td>-.05</td>
<td>n.s.</td>
<td>.01</td>
<td>n.s.</td>
<td>.12</td>
</tr>
<tr>
<td>Assistance II</td>
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<td>.034</td>
<td>-.01</td>
<td>n.s.</td>
<td>.02</td>
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<tr>
<td>School features</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Collegiality</td>
<td>-.05</td>
<td>n.s.</td>
<td>.04</td>
<td>n.s.</td>
<td>-.02</td>
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<tr>
<td>Innovation capacity</td>
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<td>n.s.</td>
<td>-.19</td>
<td>.000</td>
<td>-.05</td>
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<tr>
<td>Status of professional development</td>
<td>.02</td>
<td>n.s.</td>
<td>-.01</td>
<td>n.s.</td>
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<td>n.s.</td>
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<td>n.s.</td>
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<tr>
<td>ICC between federal states</td>
<td>.08</td>
<td>.12</td>
<td></td>
<td></td>
<td>&gt;.01</td>
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<tr>
<td>R² (within federal states)</td>
<td>.54</td>
<td>.49</td>
<td></td>
<td></td>
<td>.23</td>
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<tr>
<td>R² (between federal states)</td>
<td>.73</td>
<td>.81</td>
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* Since no significant contextual effects become apparent, only the predictors on school level (head teachers) are illustrated.
Multilevel Analysis
(schools’ reactions and intended effects)

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SEM Analysis for intended effects of SI

External impulses and support

Features of school inspection
- Communication style
- Quality of school inspection
- Characteristics of school inspection

Schools' reactions
- Acceptance
- Negative side-effects

Intended effects
- School development

School features
- Innovation Capacity
- Collegiality
SEM Analysis for intended effects of SI

External impulses and support

Communication style
Quality of school inspection
Characteristics of school inspection

Features of school inspection

Acceptance
Negative side-effects
Innovation Capacity
Collegiality
School development

School features

N=254
χ²=74.71
d.f.=18
p=.000
χ²/d.f.=4.15
GFI=.94
AGFI=.85
RMSEA=.11
TLI=.88
Summary & Discussion
Summary

• Descriptive findings
  • Average or above average acceptance of school inspection with simultaneous articulation of negative side effects
  • Variations between federal states only in the perception of negative side effects

• Multivariate findings
  • High acceptance of school inspection if it aims especially at school and curriculum development plus if it takes the individual situation of the school into account.
  • Competition orientated school inspection → significant higher expressions of negative side effects
  • No correlation detectable between school inspection and school development measures.
Summary

• Multivariate findings
  • The higher the acceptance, the rarer negative effects of school inspection are reported.
  • Relation between innovation capacity of the teaching staff and head teachers’ experiences of negative side effects
  • Important role of school supervision and local authorities for school development
  • Ehren-Visscher-framework only partially empirical confirmed
Limitations

• Methodically adequate testing of the causal effects of the Ehren-Visscher-framework (2006) can only be established via experimental or at least quasi-experimental designs.

• Response rate of the online-survey did not meet our expectations. → Self-selection-effects possible, which bring the generalization of the results into question.
• School inspection in Germany aims in its self-concept finally at the stimulation of school improvement. On the basis of our reported data this intended effect is not verifiable. How is the assessment from an international perspective?

• How can external impulses and support be extended and established in schools in a beneficial way? Which suggestions can Germany get from international experience?
Thank you for your attention!

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Sample (for primary and upper secondary schools)

<table>
<thead>
<tr>
<th>Federal state</th>
<th>Percentage primary schools according to school statistics</th>
<th>Percentage primary schools sample</th>
<th>Percentage upper secondary schools according to school statistics</th>
<th>Percentage upper secondary schools sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>65,1</td>
<td>45,9</td>
<td>10,2</td>
<td>10,1</td>
</tr>
<tr>
<td>Lower Saxony</td>
<td>43,2</td>
<td>52,3</td>
<td>7,7</td>
<td>7,8</td>
</tr>
<tr>
<td>Mecklenburg-West Pomerania</td>
<td>43,4</td>
<td>24,4</td>
<td>8,3</td>
<td>15,5</td>
</tr>
<tr>
<td>Thuringia</td>
<td>52,8</td>
<td>43,4</td>
<td>10,4</td>
<td>3,9</td>
</tr>
</tbody>
</table>