

# Monitoring and improving educational quality in Hamburg

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**ifbq**

Institut für Bildungsmonitoring  
und Qualitätsentwicklung



1. Educational monitoring
  - *Definition*
  - *Framework*
  - *Procedures / instruments*
  - *Normative foundations*
2. Example: Data driven school improvement through school inspections?
3. Example: Assessment of students learning

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# What is educational monitoring?

Monitoring can be defined as an ongoing process of observation and control of

- context, inputs, processes and outputs in the educational field
- at all system levels (students, classroom, school, district, state, national...)
- in order to identify strengths and weaknesses, formulating practical proposals for action to be taken, and guiding the necessary steps to reach the expected results.

Monitoring procedures are characterized by using data-based information.

Following a model of educational productivity, the IfBQ delivers several products and services to monitor and improve educational quality:

– **Context**

- Hamburg report on education
- regional atlas on education

– **Input**

- reference framework on school quality („Orientierungsrahmen Schulqualität“)

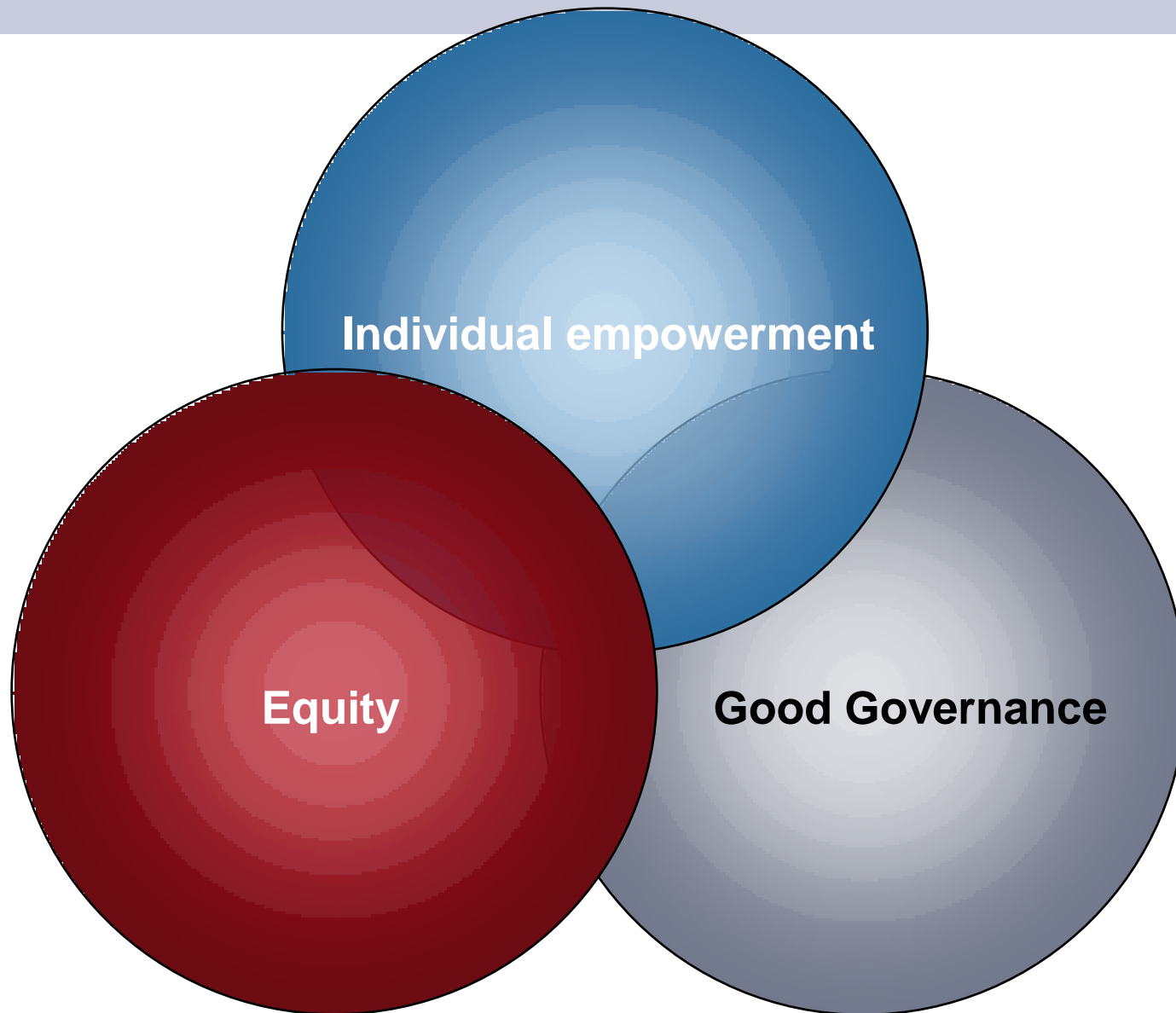
– **Processes**

- school inspection ↪ **Martina Diedrich**

– **Output**

- analysis of PISA; TIMSS; IGLU/PIRLS; IQB-Ländervergleich
- system-wide longitudinal assessments: LAU, KESS
- system-wide assessments / feedback to schools and teachers on class-level: stage 2, 3, 5, 7, 8, 9 („KERMIT“) ↪ **Jan Poerschke**
- language screening before and during school time
- evaluation of state-wide exit exams

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**Do we guarantee the accomplishment of individual educational demands?**

**Do we succeed in escorting students through all stages of institutionalised education?**

Individual empowerment

Equity

Good Governance

**Do we reduce social-related disparities in education?**

**Do certificates reflect individual achievement?**

**Do institutional structures / procedures work in an efficient and goal-oriented way?**

**Do we succeed in steering the system on all levels?**

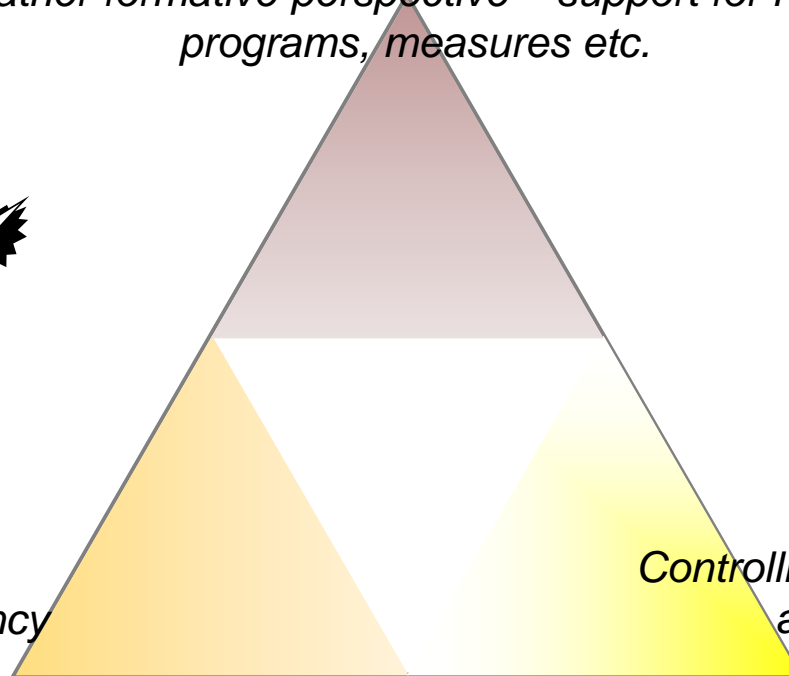


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- School inspection in Hamburg has been founded in 2007 ...
  - ⇒ to **facilitate school improvement**
  - ⇒ to **guarantee minimal standards** of school quality at school level
  - ⇒ to **create a knowledge base** for school quality at system level
  - ⇒ to make schools aware of **normative expectations** about school quality
- ➔ functional mixture with sometimes contradictory expectations school inspection has to fulfill

## **Development / Improvement**

*rather formative perspective – support for new  
programs, measures etc.*



*effectiveness and efficiency*

**Research**

*Controlling of implementing programs;  
accordance to planning*

**Accountability/  
control**



*School  
supervisory  
board*

*Schools*



*School  
inspection*

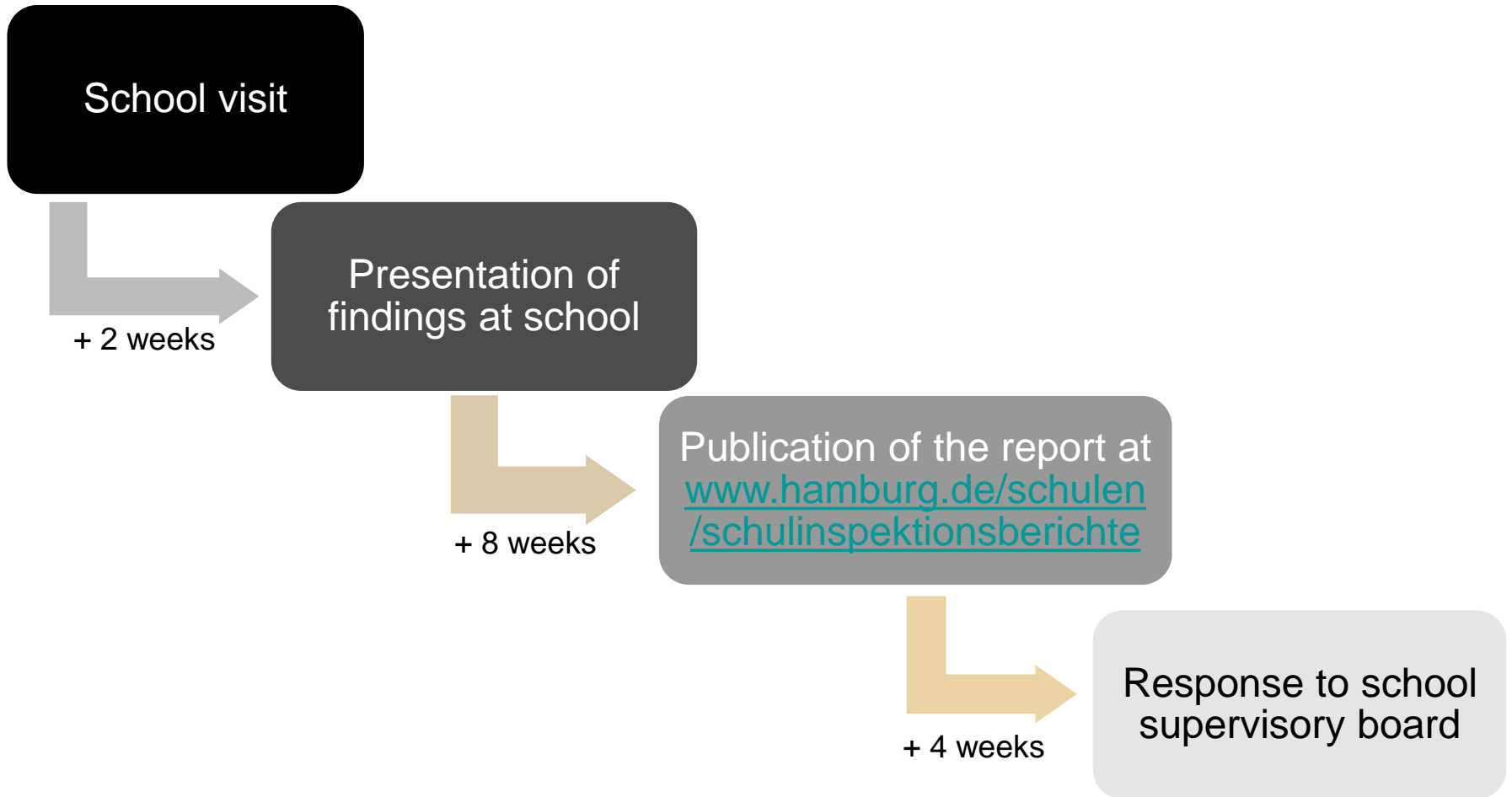
*Teacher training/  
School improvement  
agencies*

Hamburg school inspection should ...

- ... inspect every public school in Hamburg within 4 years (de facto 6 to 8 years)
- ... write reports about individual school findings to schools and school supervisory board
- publish biannual reports about findings aggregated at the system level for policy making and public interest

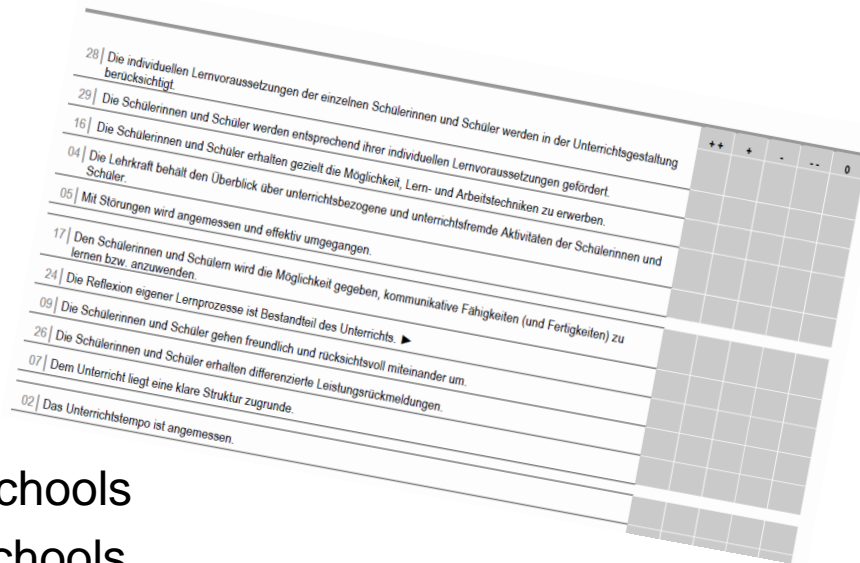


# Process of inspection



- Schools are doing good in
  - ⇒ leadership and management skills except for human resources development
  - ⇒ stakeholder participation
  - ⇒ stakeholder loyalty and employee satisfaction
- Schools have to improve in
  - ⇒ individual facilitation of students
  - ⇒ evaluation of students' achievement
  - ⇒ making up their curricula

- **instrument:** classroom observation form with 30 items describing 4 areas of instructional quality
  - ⇒ classroom management
  - ⇒ variation of didactics
  - ⇒ motivation and student orientation
  - ⇒ differentiation, competence oriented learning
- **classroom observation**
  - ⇒ 40 \* 20minute sequences in small schools
  - ⇒ 80 \* 20minute sequences in large schools
- **Results**
  - 👍 classroom management, variation of didactics
  - 👉 motivation and student orientation
  - 👎 differentiation, competence oriented learning





- School inspection does not deliver eternal truth.
  - ⇒ Rather, we offer a specific view, a data driven interpretation, one possible perspective among others.
  - ⇒ Schools should process this perspective and try to integrate it into their own perceptions.
- School inspection is one evaluation instrument among others.
- The quality of the data does not determine the quality of the reception process at the school.
  - ⇒ Rather, it depends on the communication process between schools and school inspection and on the openness of the schools.

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- KERMIT – **K**ompetenzen **ermitteln** = identifying competencies
- obligatory and system wide assessments in all schools in Hamburg
- monitoring the knowledge gain and learning success of all students
- the results of KERMIT serve primarily the improvement of school and classroom education

# Concept and objectives of KERMIT

Time of testing	Test contents	Test realization	Reference framework
2nd grade	<ul style="list-style-type: none"><li>• German</li><li>• Mathematics</li></ul>	Teacher	Educational curriculum of Hamburg
3rd grade (nationwide)			National educational standards
5th grade	<ul style="list-style-type: none"><li>• German</li><li>• Mathematics</li><li>• English</li><li>• Science</li></ul>	external test administrator	Educational curriculum of Hamburg
7th grade			
8th grade (nationwide)	<ul style="list-style-type: none"><li>• German</li><li>• Mathematics</li><li>• English</li></ul>	Teacher	National educational standards
9th grade	<ul style="list-style-type: none"><li>• German</li><li>• Mathematics</li><li>• English</li><li>• Science</li></ul>	external test administrator	Educational curriculum of Hamburg

In general, the schools receive the response six to eight weeks after testing.

Feedback formats:

- school based
- based on the classes
- for the school public
- individual feedback for the students

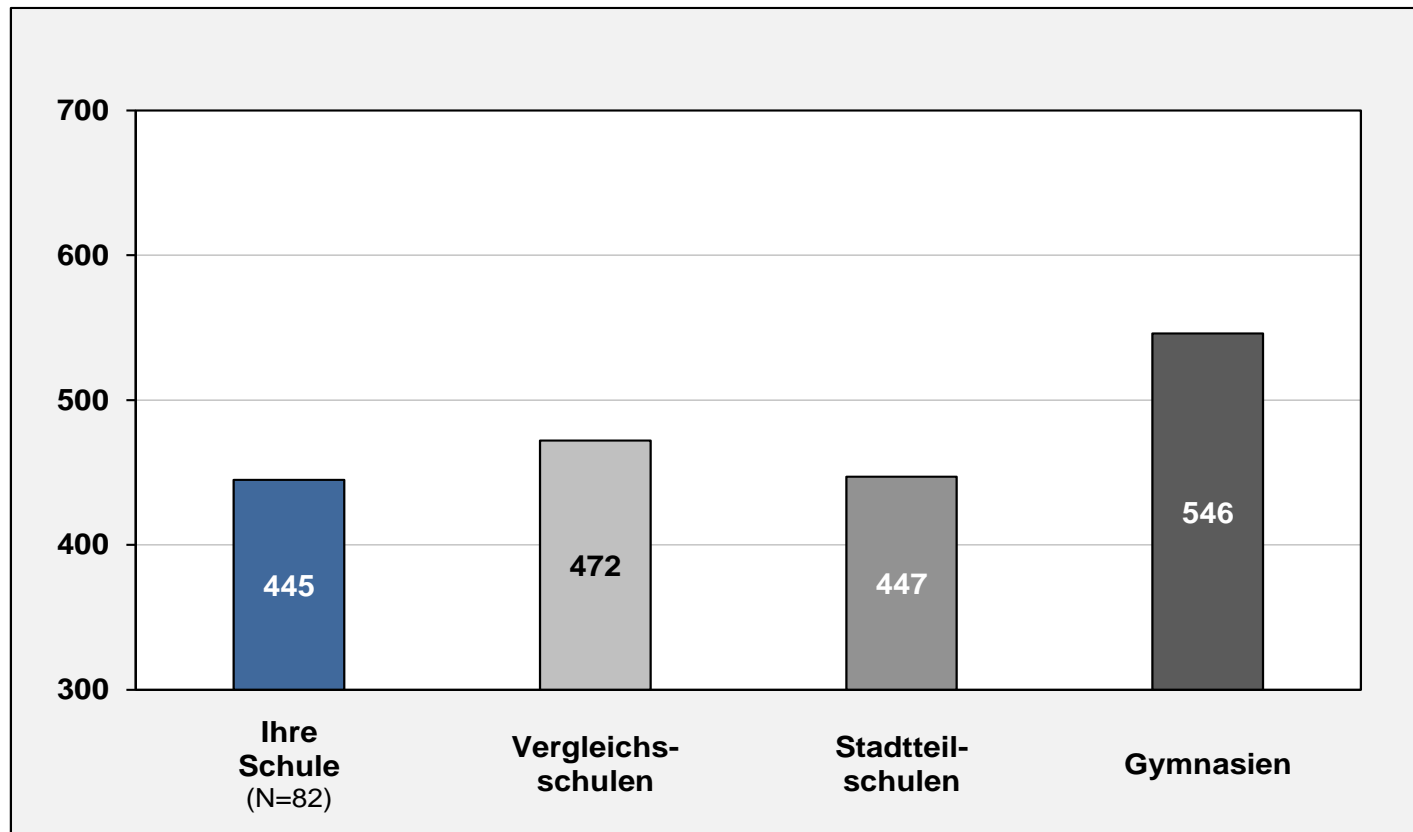
In addition:

- Feedback for the supervisory board

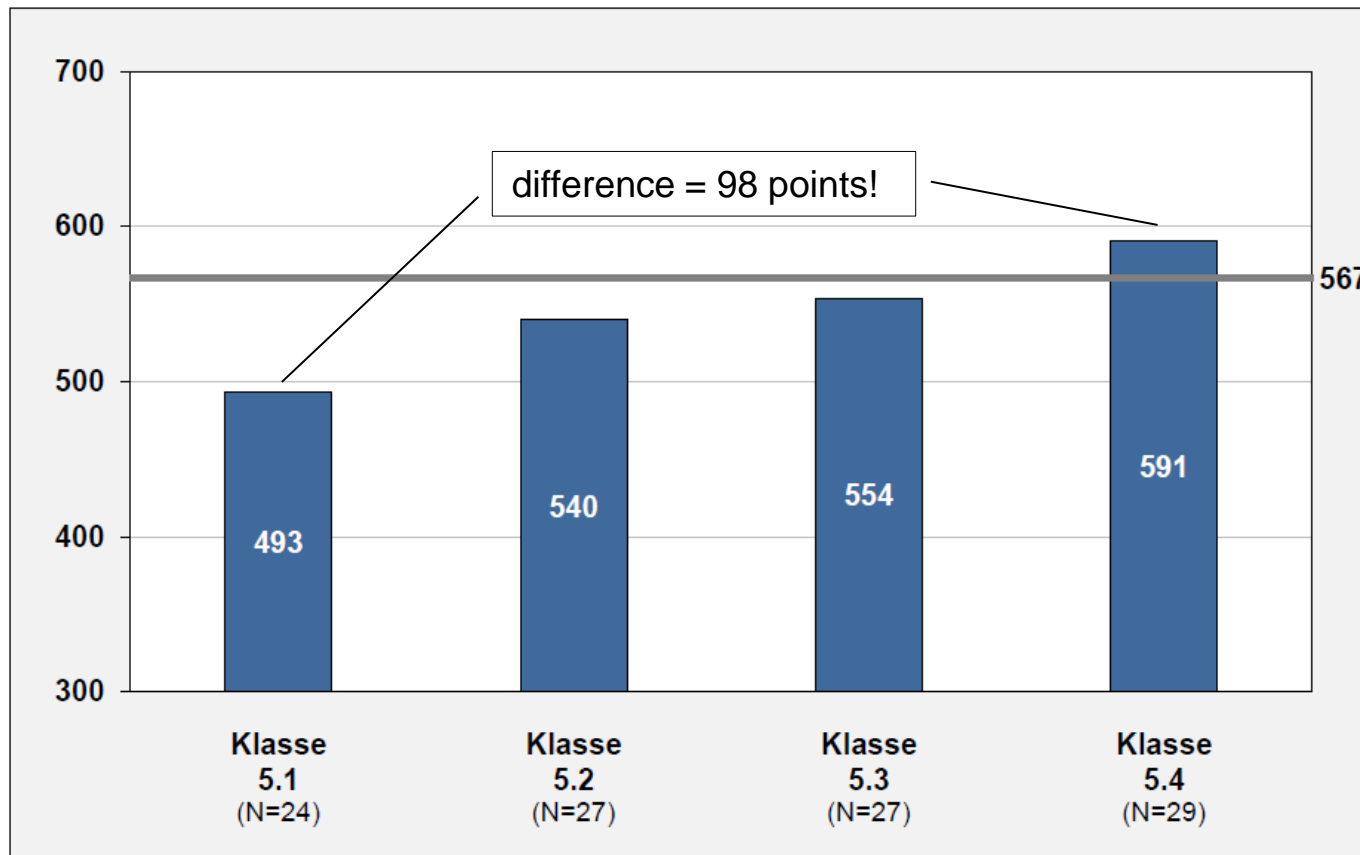
- Comparison schools...
  - eight schools of the same type of school, which are as similar as possible in their social composition
  - Features for "similarity" is selected socioeconomic information, for example reached educational qualifications of parents, household net income, number of books etc.
- Transformation of the scale values:
  - Average of all students = 500 /
  - standard deviation = 100 (based on PISA)
- Differences of 30 points (about one-third of a standard deviation) and more are pedagogically significant on class or school level.

# Feedback of the results and how to deal with them

Comparison of mean values for school, comparison schools and type of school (KERMIT 5, *Stadtteilschule*)



## Comparison of means between the parallel classes (KERMIT 5, *Gymnasium*)

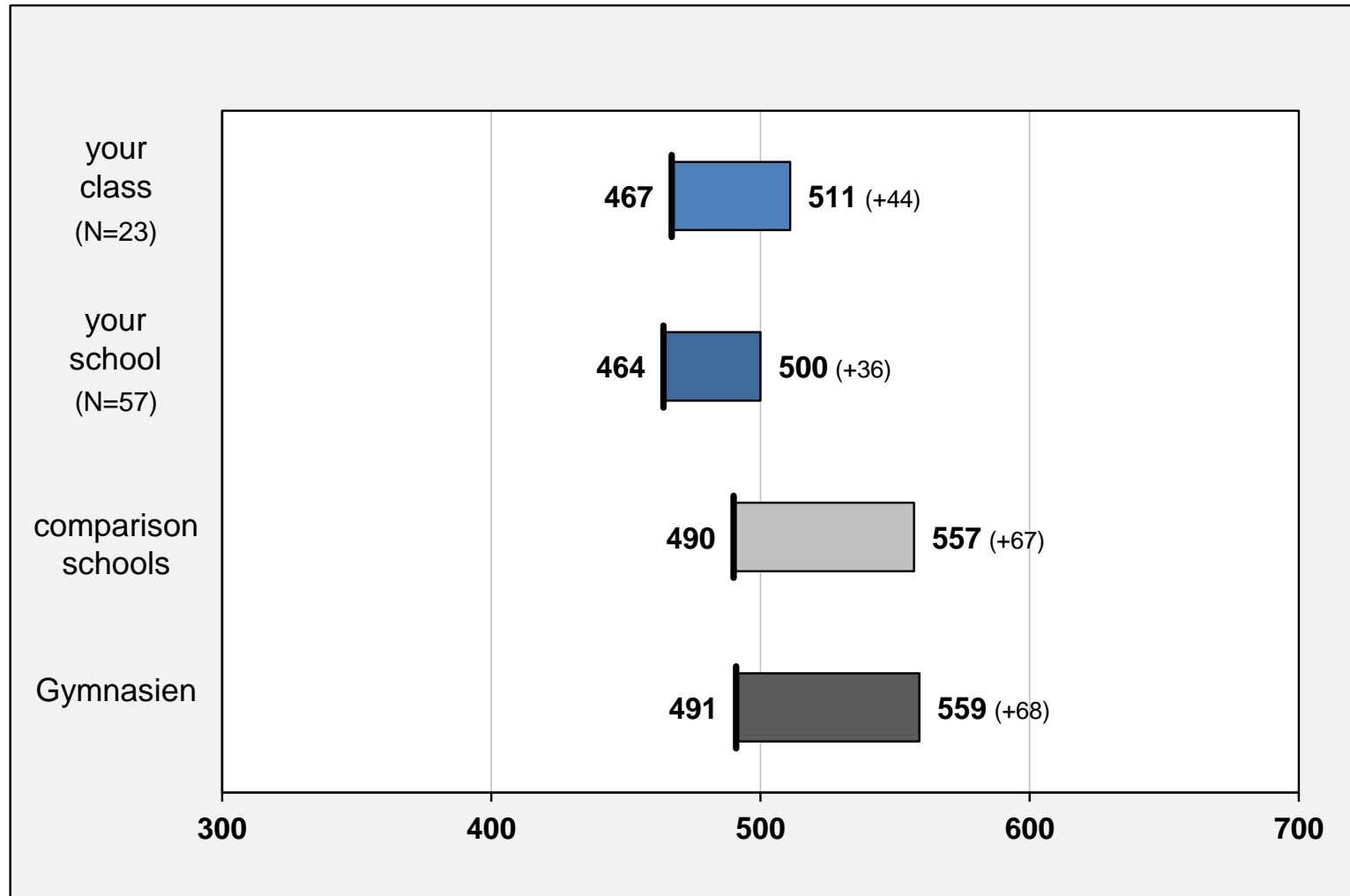


mean value of  
comparison  
schools

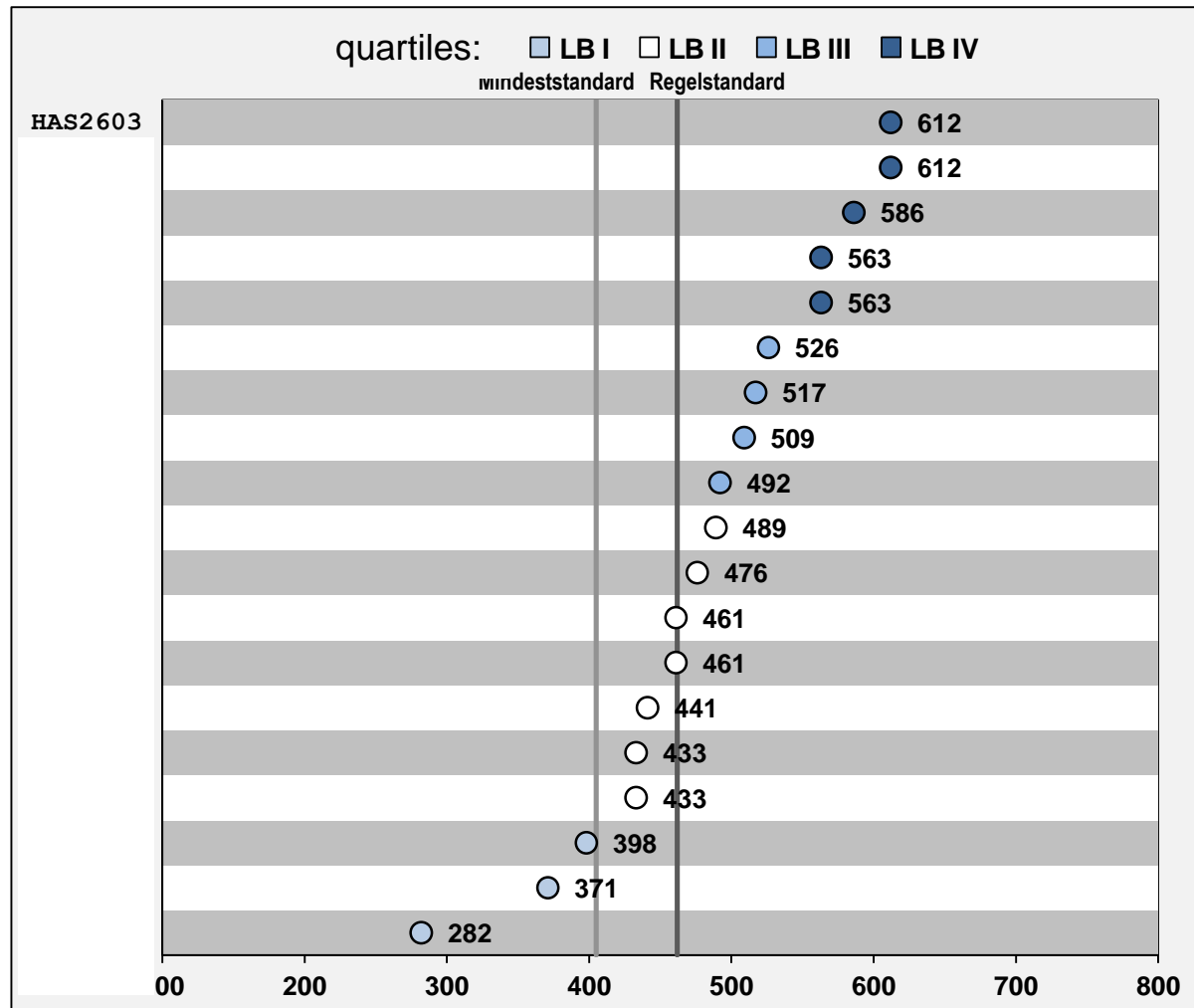


# Feedback of the results and how to deal with them

## Medium improvement of performance (KERMIT 5 - KERMIT 7, *Gymnasium*)

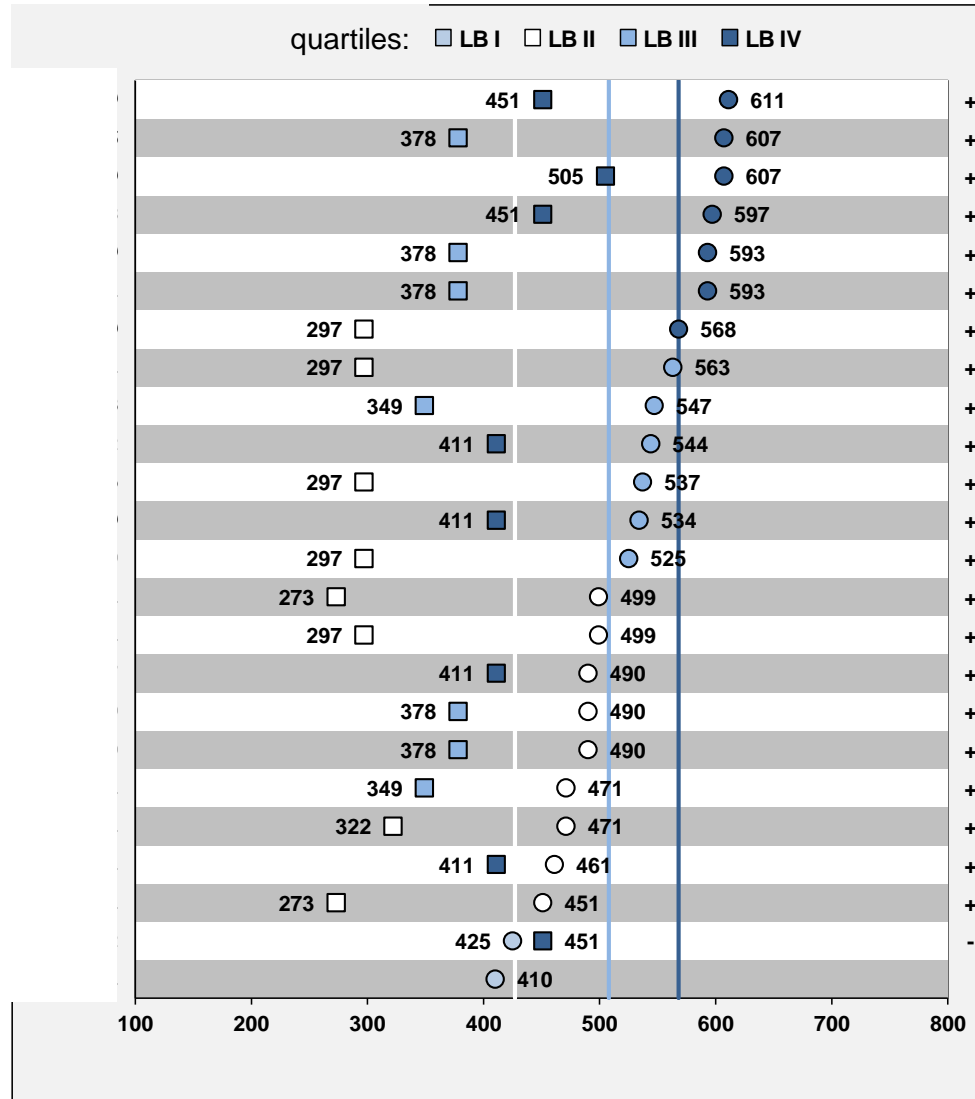


## Distribution of individual test results (KERMIT 5)

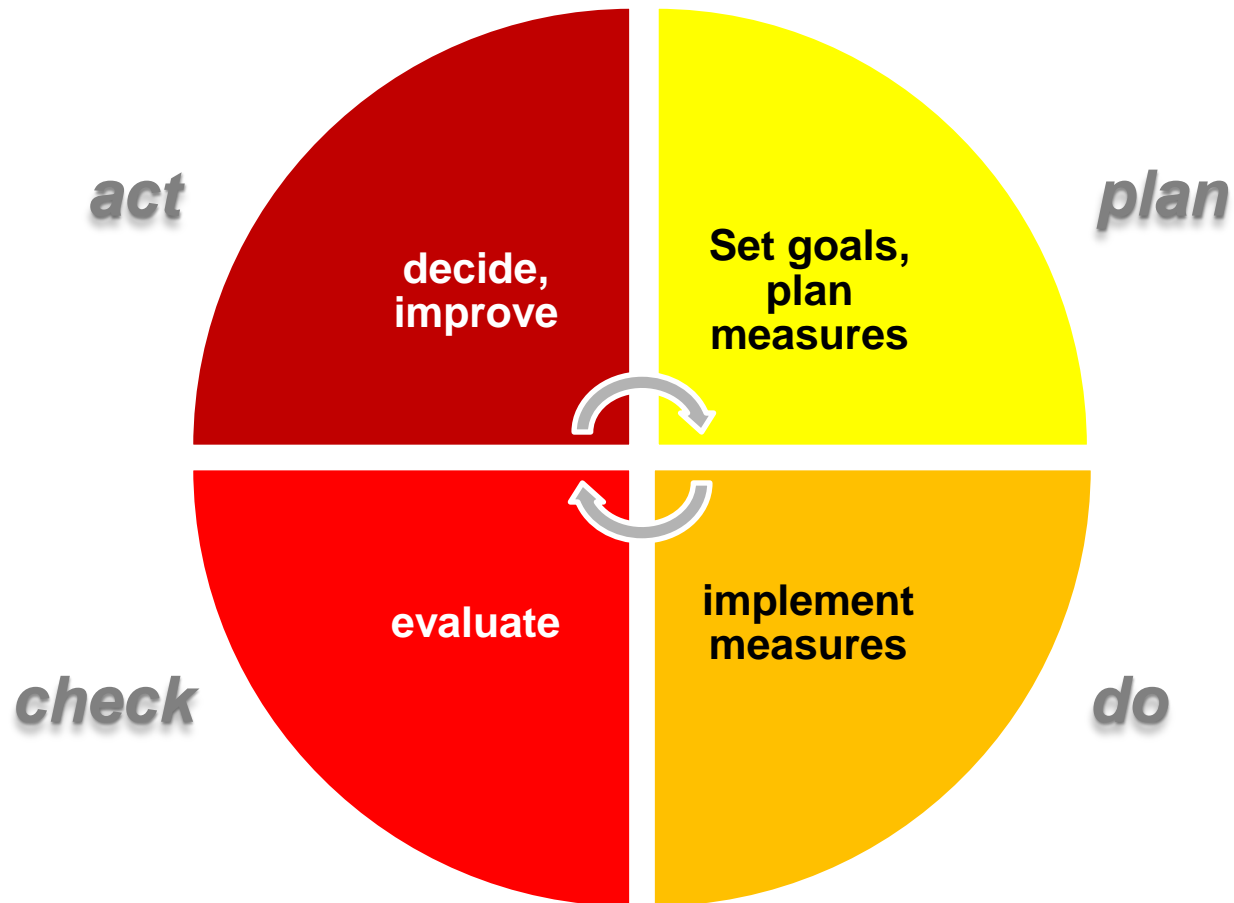


# Feedback of the results and how to deal with them

## Distribution of individual learning success (K 5 - K 7)



# Cycle of quality management



# Thank you for your attention!

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