Ten Years of National Projects at the IEA DPC
A Review

Report to the IEA General Assembly
Berlin, October 2008
National Projects - Clients

- Services provided for different contractors in Germany
  - Universities
  - Research institutes
  - Other organizations
National Projects-Type of Services I

- Sampling
- Development and implementation of all field operation procedures
- School contacts
- All tasks related to data protection and privacy
- Recruitment, training, management and payment of test administrators
- Print preparation and printing
- Testing in schools
National Projects-Type of Services II

- Receipt of material / logistics
- Scanning and distribution of material
- Recruitment, training, management and payment of test Coders
- Coding of data
- Data entry
- Data management / data processing
- Archiving of material
Units and Teams Involved

- Field operations unit
  - Test administration team
- Coding unit
- Data Management unit
  - Printing team
  - Logistics team
  - Scan team
  - Verify team
  - Data processing team
### Project Development

![Diagram showing project development timeline from 1999 to 2010.](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>Project</th>
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<td>BS 2006 + 2007 + 2008 + 2009</td>
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### Number of Projects

<table>
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<th>Year</th>
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<td>2009</td>
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Project Development

The diagram illustrates the timeline and number of projects from 1999 to 2010, with a focus on the years 2008, 2009, and 2010. The projects are listed on the timeline, and the number of projects for each year is shown below:

- 1999: 1 project
- 2000: 2 projects
- 2001: 3 projects
- 2002: 7 projects
- 2003: 10 projects
- 2004: 14 projects
- 2005: 16 projects
- 2006: 20 projects
- 2007: 23 projects
- 2008: 13 projects
- 2009: 8 projects

Projects mentioned include:
- COACTIV
- LMU
- LAU_13
- TREE-04
- KOALA_S
- BLK-Demo
- katraie
- BIP
- StuBBS
- EESS
- EBAFLS
- IGLU Belgien
- FEST
- Schul index HH
- KOMMA
- TRAIN
- COACTIV_R
- OKT
- BiTe
**Project parameters**

- **Size of projects**
  - Schools: 30-1500
  - Students: 500-63000
  - Teachers: 30-20000

- **Instruments**
  - Number of different instruments: 1-88
  - Number of pages per instruments: 2-150
Challenges—and how they were addressed

- School management
- Management of test administrators
- Printing
- Coding
- Logistics
- Archiving
Challenge: Management of schools

Challenge: Increasing
- Number of schools, teachers, students
- Test groups
- Complexity (Different treatments, several testing days...)

Solution: Database reflecting the entire school coordination process
- Within-school sampling
- Documentation of school contact
- Booklet allocation
- Making use of different views on the data
Challenge: Management of test administrators

- Challenge: Increasing
  - Specialization
  - Multiple assignments

- Solution: Database reflecting the TA assignment process
  - Test administrators’ details
    - Address
    - Competences, experience
  - Linkage to test groups in schools (-> school database)
  - Shipment of material
  - Invoicing form
**Challenge: Printing**

- **Challenges:**
  - Less time between printing and test
  - Simultaneous print jobs
  - Delivery control

- **Solution**
  - Adopt printing on demand technology
  - Create print database that’s connected to the school database and test administrator database
  - Establish interface with printer and connect to test administrator database
  - For small studies and critical projects: establish in-house printing facilities
Challenge: Coding

Challenges:
- Multiple number of test booklet
- Same item in many positions/booklets
- Limited amount of time
- Precision requirements

Solution
- Coding software
- Mirrors the coding process
- Uncouples paper and pencil position and coding procedure
- Training with immediate feedback
- Control within and between coder
- Preparation of invoices
**Challenge: Logistics**

- **Challenge: Increasing**
  - Number of schools, teachers, students
  - Test groups
  - Complexity (Different treatments, several testing days...)
  - Immediate action if low participation rates or missing material

- **Solution: Database reflecting the entire school testing and printing process**
  - Printed and shipped booklet
  - Tracking of all incoming material
  - Completed? Empty?
Challenge: Archiving

Challenge: Immediate retrieval of instruments

Solution: Archiving program
- All scanned pictures stored in hierarchical file structure, reflecting: state, school type, school, class, student, instrument, page
- File system reflected in database
- Search, sorting, building of sub-groups through queries
- Collection of pictures through query
Future challenges

- Computer based assessment
- Shared work/versioning
- Logistics process
  - Time consuming
  - Too many manual operations
- Quality requirements
  - Response rates
  - Comparisons with official statistics
- Costs (Investment, maintenance, training, staff development)
- Benefits
- Risks
Thank you