



Large-Scale Learning Assessments Course: National Surveys, PISA, TIMSS and PIRLS Results



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Introduction:

Large-scale learning assessments, covering national surveys and PISA, TIMSS and PIRLS results, are the subject of this 5-day course for ministry assessment units, national assessment agencies and education evaluation researchers, ending with a National Assessment Programme and Results Use Plan for a case ministry. Many education systems join international studies or run national surveys yet publish rankings that never change policy, because sampling, scaling and reporting choices are poorly understood. Nominees already contribute to system-level assessment or reporting and work through case files of sampling frames, scale scores and results tables. CoreConcept Training Center delivers this large-scale assessment course.

Course Objectives:

- Distinguish census assessments, national sample surveys and international studies, and position participation in PISA, TIMSS and PIRLS against the system's policy questions
- Translate assessment frameworks into domain, cognitive process and context questionnaire specifications supported by a rotated booklet design
- Plan stratified two-stage school and student samples, sampling and replicate weights, and field operations from field trial to main survey
- Interpret Rasch scaling, latent regression, plausible values and trend linking output when reading national and international scale scores
- Report proficiency levels and international benchmarks with standard errors and significance tests rather than league table rankings
- Convert survey findings into policy briefs, school feedback and a National Assessment Programme and Results Use Plan for a case ministry

Target Audience:

- Ministry assessment units responsible for national learning surveys and participation in international studies
 - National research coordination teams accountable for sampling, field operations and data submission
 - Assessment agency data teams responsible for scaling, weighting and results databases
 - Education evaluation researchers who run secondary analysis of national and international datasets
 - Policy and planning units that turn system-level learning results into targets and reform proposals
 - Curriculum and teacher development units that use assessment frameworks to review what students learn
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Course Outline:

Day 1: Large-Scale Assessment Landscape and System Readiness Review

- Census Versus Sample-Based National Assessment Purpose Comparison
- PISA, TIMSS and PIRLS Target Populations and Domain Coverage
- Low-Stakes System Monitoring Versus High-Stakes Candidate Selection
- Policy Question Inventory Linked to Study Participation Choices
- National Assessment Capacity Review of Units, Budgets and Data

Day 2: Assessment Frameworks, Test Design and Context Questionnaires

- TIMSS Content and Cognitive Domain Matrix for Mathematics and Science
- PIRLS Reading Purposes and Comprehension Processes Framework Mapping
- PISA Reading, Mathematical and Scientific Literacy Definitions Review
- Matrix Sampling and Rotated Booklet Design for Domain Coverage
- Student, Parent, Teacher and School Context Questionnaire Blueprint

Day 3: Sampling Design, Survey Weights and Field Operations

- Stratified Two-Stage School and Student Sample Design
- School Sampling Frame Construction and Exclusion Rate Checks
- Base Weights, Non-Response Adjustment and Replicate Weight Variance
- National Research Coordinator Field Trial and Main Survey Workplan
- Test Administrator Manual, Session Monitoring and Data Capture Checks

Day 4: Scaling, Plausible Values, Trend Linking and Reporting Risks

- Rasch Model Scaling and Item Fit Review for Survey Data
- Latent Regression Conditioning and Plausible Values Estimation Logic
- IRT Scale Linking for Trend Comparison Across Assessment Cycles
- Proficiency Levels, International Benchmarks and Standard Error Reporting
- IDB Analyzer Secondary Analysis and Ranking Misinterpretation Risks

Day 5: Case Study on a National Assessment Programme and Results Use Plan

- Case Ministry Policy Questions and Study Participation Options Brief
 - Case Sample Design and Weighting Specification Draft
 - Case Analysis of Plausible Value Results and Subgroup Gaps
 - Case Policy Brief and School Feedback Report Formats
 - National Assessment Programme and Results Use Plan Completion
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Skills You Will Gain:

- Assessment Framework Mapping
- Survey Sample Design
- Sampling Weight Application
- Field Operations Coordination
- Plausible Value Analysis
- Trend Scale Interpretation
- Proficiency Level Reporting
- Assessment Policy Briefing

Why Attend This Course:

- Deliver a National Assessment Programme and Results Use Plan to senior ministry leadership, the assessment agency head and the policy planning unit
- Decide which grades, domains and international studies the system should cover, and which results can support a policy claim
- Avoid misleading league table headlines, biased samples with high exclusions and trend breaks that invalidate comparisons across cycles
- Brief curriculum, teacher development and school leadership colleagues on reading proficiency levels and benchmark results correctly

Conclusion:

Back at work, the participant presents the National Assessment Programme and Results Use Plan to senior ministry leadership, the assessment agency head and the policy planning unit. They use it to approve which grades and domains are surveyed, whether and how the system joins international studies, the sample and weighting specification, and how results reach schools and reform decisions. After the first survey cycle or international results release under the plan, the unit should review exclusion rates, standard errors, trend comparability and whether results changed any policy or school action.

Frequently Asked Questions FAQ:

What should participants know before a large-scale learning assessments course?

Participants should already contribute to national surveys, international study participation, assessment data analysis or education policy reporting, and read tables of means, percentages and standard errors. Bringing a national results report or an international study summary makes the case work more useful.

How does a large-scale learning assessments course differ from an examination management course?

It deals with low-stakes sample surveys that measure the learning of a whole education system, using matrix sampling, survey weights and plausible values. Examination management courses deal with high-stakes papers that grade individual candidates, with marking, moderation and pass marks.

Why do large-scale learning assessments report plausible values instead of individual scores?

Each student answers only part of the item pool, so single scores would be unreliable. Plausible values, drawn from an IRT scaling model with latent regression, give unbiased estimates for population groups and correct standard errors, which system-level reporting requires.

What do participants take back from the large-scale learning assessments course?

Participants take back a National Assessment Programme and Results Use Plan, plus a framework mapping matrix, a sample and weighting specification, a field operations checklist, a proficiency reporting template and a policy brief format adaptable to their own ministry or agency.