

Realizations

International Evaluation IAEP

Educational Testing Service (ETS) realized two international evaluations between 1986 and 1992, known by the expression "International Assessment of Educational Progress" (IAEP). The first one took place between 1986 and 1988 with five countries and four Canadian provinces.

Twelve school populations underwent the planned assessment. The students were 13-year-old, frequented private or public schools mainly from primary level or at secondary level. For every population, we retained a random sample of about 2000 students resulting from 100 educational schools. About 24000 students were evaluated. Here is the list of countries having participated in this first evaluation: Korea, Spain, United States, Ireland, United Kingdom and four Canadian provinces (British Columbia, Quebec, Ontario and New Brunswick). Within the framework of this evaluation, the students took a mathematics test (45 minutes and 63 items) and a test of science (45 minutes and 60 items). Besides, the students also answered questions on the experiences at the school and their attitudes towards these. The teaching personnel answered a questionnaire in order to verify if the students had learnt the notions in cause.

The second evaluation was realized during the school year 1990-1991. Twenty countries participated in an evaluation in mathematics and in sciences at the 13-year-old students; fourteen countries also made an evaluation of their 9-year-old students. Certain populations evaluated geography at their 13-year-old students. Finally, some countries estimated the mathematics and the sciences to 13 years by means of a practical test. The following countries participated in this second evaluation:

England	United States	Mozambique
Brazil	France	Portugal
Canada	Hungary	Slovenia
China	Ireland	Swiss
Korea	Israel	Taiwan
Scotland	Italy	Soviet Union
Spain	Jordan	

For each population evaluated during the IAEP II, approximately 3300 students selected in 110 schools participated in the operation. Approximately 175000 students of 13 and of 9-year-old were evaluated during the school year 1990-1991.

Micro Centre Pythagore has realized certain technical works. Here are the main technical tasks carried out:

- It was necessary to develop the instrumentation adapted to evaluations touching a varied set of school systems. Micro Centre Pythagore was responsible for setting up items banks including the relevant information in the writing of tests and questionnaires respecting the planned design.
- The instrumentation elaborated to realize these evaluations has been field testing with the aim of selecting items and questions that must be used during the administration of the mechanism. Micro Centre Pythagore realized several works connected to data processing. There were then statistical analyses touching mainly the metric qualities of the experimented items.
- It was decided that the data entry would be realized by the participants to this project. ETS entrusted to Micro Centre Pythagore the responsibility for proposing an approach guaranteeing the rigor of the collection of the information. There was the development of software allowing the data capture and the quality control.
- It is Micro Centre Pythagore that was responsible for constituting databases containing the whole information collected by these evaluations; several works were realized. There was organized a set of procedures to guarantee the rigor of the prepared files. It was also necessary to realize the merging of information resulting from questionnaires and from tests used.
- The statistical compilations were assured by Micro Centre Pythagore. These treatments had to take into account the weighting of the records (students and schools) in accordance with the estimate of sampling design. Furthermore, the margins of error were calculated with regard to the technique said "Jackknife". Several statistics were produced; as examples, we can enumerate these: distributions of frequencies; items analyses (classics and according to the Item Response Theory), average results, analysis of the Differentiated Items Functioning and factorial analyses. It was also necessary to produce compilations according to contextual variables.
- A set of documents of information had be produced to assure a standardized and rigorous progress of these evaluations. Micro Centre Pythagore drafted the handbooks of administration touching different aspects of the operation.

Furthermore, Micro Centre Pythagore set up a mechanism of periodic broadcasting of information about the project; and so a server of e-mail was retained to communicate news bulletins reminding the tasks to be realized; Micro Centre Pythagore filled an important role in the distribution of the information in countries participating in this evaluation.

- Several training sessions took place within the framework of these evaluations. Micro Centre Pythagore participated in their organization and in their animation. And so meetings concerned the data entry and the quality control of files prepared by the national persons in charge. The software used to do the data entry given to the participants was then presented.
- Micro Centre Pythagore was associated with international meetings planned throughout the progress of these evaluations. There was collection of information with the persons resulting from participating countries. Furthermore, information on the obtained results was given and explained to the national persons in charge.
- Micro Centre Pythagore prepared several reports reporting the available information. These documents were printed and sent to the national persons in charge. Graphic illustrations were planned to facilitate the interpretation of the obtained results.
- The data collected on the occasion of a project large-scale as the evaluation IAEP can be of use to the realization of follow-up studies. It is thus necessary to plan the preparation of complete and well informed data banks which can be used by researchers. Micro Centre prepared such banks which was distributed them, at first, in the participating countries

Email address: info@mcpythagore.com