

POLAND [2] - 2013 TEACHING TOOLS DATABASE

A. BASIC INFORMATION

Country:	Poland
Title of initiative:	[PL] Baza Narzędzi Dydaktycznych [EN] Teaching Tools Database
Coordinator/ Organization:	[PL] Instytut Badań Edukacyjnych (IBE) [EN] Educational Research Institute
Key competences addressed:	[PL] Rozwój krytycznego myślenia / [EN] Critical thinking [PL] Umiejętność rozwiązywania problemów/ [EN] Problem solving
Type of initiative and channels used for implementation (e.g. curriculum reform introduced through legislation etc.)	Support for the implementation of the new core curriculum that has been used in Polish schools since 2009. The new core curriculum emphasises the importance of higher order skills: critical thinking, scientific reasoning and problem solving
Partners:	N/A
Scope: (student/teacher/school level; local/regional/national)	<ul style="list-style-type: none"> · Teachers, teacher trainers, students · National level
Learning context: (formal or non-formal)	Formal
School education level/s: (primary, lower secondary, upper secondary)	Lower secondary schools
Target groups:	Teachers, teacher trainers, students
Time frame: (start and end date)	5 October 2011– 30 June 2015
Relevant links:	www.bnd.ibe.edu.pl

B. SUMMARY

Our experience and our research shows that supporting students and teachers while introducing changes into the education system is crucial for the benefit of the education. New curriculum reform of 2008 in Poland underlined the concept of critical thinking and problem solving in teaching at all school levels. The Educational Research Institute developed a tool for teachers representing lower secondary schools aimed at supporting their preparation for work with students. The Tools Data Base is shaped in a way to help teachers understand how the tasks for students should be prepared in order to get them involved in reasoning and searching for best problem solutions.

A special website was constructed and is open for everybody wishing to participate. Although mainly addressed to teachers, also students and parents can benefit from it.

C. IN DEPTH INFORMATION

Rationale/contextual background/motivation for introducing the initiative/reform:

The initiative is one of the results of the ‘Quality and effectiveness of education - strengthening of institutional research capabilities’ project, financed by the European Social Fund as a part of the Operational Programme Human Capital. The main goal of the project is capacity building in the field of educational research and the use of research findings in education policy, practice and management.

The new core curriculum adopted in 2008 and implemented in Polish schools since 2009 describes the learning outcomes that should be achieved in formal education. It emphasises the importance of teaching and learning higher order skills, such as argumentation, mathematical reasoning, critical thinking and understanding the rules of scientific reasoning. While these goals are often recognised as key in education, the practical materials for teachers and students that help to develop and assess these skills are lacking. The Teaching Tools Database helps to fill this gap. It mainly addresses teachers but contains tasks in mathematics, science, Polish language and history that can be freely used also by students. As all tasks have reference to specific goals and learning outcomes of the Polish core curriculum, the database supports the implementation of the core curriculum goals, by pointing out how specific requirements in the curriculum can be understood, developed in the classroom and assessed.

Objectives:

The objective is to promote the development of critical thinking and other higher order skills in mathematics, Polish language, science and history. Each task is accompanied by a professional comment that describes the structure of the task, helps to interpret students’ correct and incorrect answers and provides a suggestion of how to use task during a regular lesson.

Dimensions targeted by the initiative/reform (e.g. student curriculum, assessment, initial/in-service teacher education, school autonomy etc.):

The database contains tasks that can be used for assessment. However, each task can also be used for the development of lessons plans and class discussions. The database can serve as a source of inspiration for teachers and helps to build an understanding of the goals and learning outcomes of the core curriculum.

Overall approach (e.g. holistic – existence of an overarching strategy, or targeted approach focusing on a specific dimension etc.):

The database contains various tasks with reference to specific learning outcomes. The emphasis is, however, on higher order skills that are less commonly found in the textbooks and tests used in schools or even in central external examinations in Poland.

Detailed explanation of the key competence/s concerned:

- Critical thinking: in reference to history and Polish language, linked with the ability to understand and the reflective use of texts.
- Problem solving: in reference to mathematics and science, linked with the abilities to draw conclusions based on mathematical reasoning, to use scientific knowledge and to understand scientific methods for identifying and solving problems.

Specific subjects concerned or cross-curricular approach:

History, Polish language, mathematics, science.

How the initiative/reform is being implemented (e.g. process followed, political commitment, consultation with stakeholders and their respective roles, incentives for stakeholders, dedicated funding, teaching material, definition of goals and standards, assessment and evaluation mechanisms, impact on teacher training/professional development and school practices/leadership, scaling-up approach, based on research/evidence? etc.):

Most of the tools are developed by experts of the Institute. Some are developed by external experts. The tasks are piloted among students. Pilot studies and statistical analyses are used to enhance quality of the tasks before they are included in the database. All tasks are referenced to the learning outcomes defined in the national core curriculum.

The Tools Data Base is open-access database and has a creative commons license (CC BY-NC-SA) that promotes the use and dissemination of tasks. The database is promoted at seminars, conferences and workshops with teachers, as well as through electronic newsletter and facebook.

Present stage/phase of implementation:

The Tools Data Base with over 700 tasks accessible on the internet. The initiative is under continuous enhancement.

Pedagogical issues (issues related to how key competences are being taught to students and how are teachers being prepared to teach them):

Polish core curriculum for each subject consists of two parts: general and specific requirements (learning outcomes) that are listed in points (as “can do” statements). The content of the curriculum is a backbone for the construction of the database. That allows teachers to see which particular learning outcomes either general or specific can be operationalized and assessed. Each task corresponds to at least one specific learning outcome of the core curriculum. That helps teachers and students to understand what is required from them not only in theory but also practically.

What works well (to identify enablers):

The Tools Data Base shows teachers how tasks can be developed for students, explaining the process of shaping the tasks in order to get students involved in critical thinking and problem solving. Each task shown in the Tools Data Base gives the solution and explains the reasoning. Monitoring of the Tools Data Base shows that the number of users systematically grows. Since September 2011 till July 2013 approx. 300 000 visits were observed, with over 214 000 unique users.

Opinions and remarks collected via internet show that the Data Base is well assessed by teachers as a helpful instrument which supports their preparation to everyday work in schools with students. Data base is also used by teacher trainers and publishers as training tool during their work. Task authors are also often invited as experts during the process of creating national exams.

Challenges and how these are being addressed (to identify obstacles and solutions):

The Tools Data Base was addressed originally to teachers from lower secondary schools and most of the tasks included in the Data Base are addressed to the core curriculum earmarked for this school level. However, expanding its content to other educational levels might be challenged in the nearest future as well as making its content enriched with other tasks to be developed by experts. The modification of the Data Base to be more user-friendly for students is also a question to be answered.

Monitoring & evaluation so far/planned, and which methods are being used (e.g. internal/external quality assurance, inspection, national assessments, international tests, self-evaluation, formative or summative evaluations):

Constant monitoring of the number of users is the simplest method of the verification of the utility of the Tools Data base. Another example is the use of individual tasks by regional examination offices for the purposes of regional students competition.

Impact (e.g. any planned impact assessment?):

No

Communication of the initiative/dissemination of outputs and activities:

The main instrument of communication is the website, where the Tools Data Base is located.

Next steps/follow-up:

Further development of tasks, enriching the content of the Tools Data Base is needed, in particular in regards to other school levels than lower secondary schools. Later this year the database will also consist of good practices gathered from teachers who cooperate with our experts.