

Report from the FP7 project:

Assess Inquiry in Science, Technology and Mathematics Education



ASSISTME

Matrix of educational system factors influencing student assessment methods in science, technology and mathematics education

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This deliverable presents the matrix elaborated by the LSE-UJF team in order to characterize the partners' educational systems in regards to factors influencing student assessment methods in science, technology and mathematics education.

Dimensions	Variables
1- System organisation and management	<p>Centralization of educational system</p> <p>Curriculum</p> <p>Funding and resources management</p> <p>Teaching profession</p>
	<p>Structure of educational system</p> <p>age for choosing a career track</p> <p>number of students per class</p> <p>ratio public/private schools</p> <p>local targeting of resources</p> <p>school performance monitoring</p>
2- Schools organisation and management	<p>Teacher collaboration</p> <p>dedicated in-school structure</p> <p>dedicated time to collaborate</p> <p>teacher small groups</p> <p>exchanges / student learning and engagement</p>
	<p>Leadership</p> <p>teacher /decision making at school level</p> <p>teacher /decision making at regional level</p> <p>students, parents, and community /school</p> <p>school leaders /instruction improvement</p> <p>school leaders / teacher evaluation</p> <p>school leaders / teacher development program</p>
	<p>Student performances monitoring</p> <p>school data collecting for monitoring student progress</p> <p>teacher recording of student progress for internal use</p> <p>record / student difficulties (nature and recommendations)</p>

3- Teacher education and professional development	<p>Education (initial)</p> <p>teacher education level (required & actual)</p> <p>model of initial teacher education</p> <p>part of ECTS / educational courses</p> <p>part of IBST (actual & 15 years ago)</p> <p>part of FA/SA (actual & 15 years ago)</p>
	<p>Training (CPD)</p> <p>in-service education mandatory</p> <p>CPD programs (design & evaluation)</p> <p>part of IBST (actual & 15 years ago)</p> <p>part of FA/SA (actual & 15 years ago)</p>
	<p>Teacher population characteristics</p> <p>ratio age</p> <p>ratio experience length</p>
4- Science education	<p>Role of competence model</p> <p>competence model explicit or implicit</p> <p>specific competencies related to IBSTME</p> <p>competencies related to Formative Assessment</p>
	<p>Importance of science and math subject in the curriculum</p> <p>STM: separate or integrated subjects</p> <p>amount of time allocated</p> <p>STM connection with other subjects</p>
	<p>Importance of IBSTME</p> <p>IBSTME mentioned in STM curriculum</p> <p>IBSTME mentioned in STM textbook p</p> <p>IBSTME resources for teachers</p> <p>part of inquiry based methods in science teaching</p> <p>part of practical work in science teaching</p>
5- Form of student assessment	<p>Day-to-day assessment</p> <p>designing, performing and correcting day-to-day students' assessment</p> <p>students' progress communication</p> <p>students involvement in assessment of their own (and</p>

	<p>others') performance</p> <p>dedicated meetings for helping students and parents to make sense of the assessment information</p> <p>consequences of evaluation on students' career</p>
	<p>Summative assessment</p> <p>designing, performing and correcting SA</p> <p>teachers involvement in SA design</p> <p>consequences of evaluation on students' career</p>
	<p>Students' career and grade retention</p> <p>grade retention allowance</p> <p>grade retention limitation</p> <p>grade retention frequency</p> <p>coping with students who encounter difficulties</p>