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Evaluating Quality
in Educational Spaces:
OECD/CELE Pilot Project

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Evaluating Quality in Educational Spaces: OECD/CELE Pilot Project

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CELE's International Pilot Project on Evaluating Quality in Educational Spaces aims to assist education authorities, schools and others to maximise the use of and investment in learning environments. This article provides an update on the pilot project, which is currently being implemented in Brazil, Mexico, New Zealand, Portugal and the United Kingdom.

BACKGROUND

The OECD Centre for Effective Learning Environments (CELE) began work on evaluating quality in educational spaces in 2005 with two international experts' meetings on the topic in Lisbon, Portugal, and Telchac-Puerto, Mexico (see www.oecd.org/edu/facilities/evaluatingquality). These meetings were organised in response to a growing research interest and policy focus among a number of CELE members: the importance of engaging with the users of learning environments and other stakeholders to enrich understanding of how, and how effectively, environments support educational and other objectives.

Quality in the context of education systems is challenging to define. The CELE Organising Framework on Evaluating Quality in Educational Spaces seeks to define quality within the context of policy issues, and according to a series of principles and criteria. It also considers the process by which quality is evaluated, the point in a facility's life cycle at which it is evaluated, the stakeholder(s) involved and the tool(s) used. The Framework "demonstrates the inter-relationships over a facility's life cycle between the broad policy issues that both shape and respond to quality issues in educational facilities; current conceptions of what defines 'quality' in educational facilities; the demands and benefits of the facility to its numerous users and other stakeholders; and appropriate methods that can be used to evaluate different aspects of quality."

The framework provides the conceptual underpinning for much of CELE's work that has followed in this area, including the International Pilot Project on Evaluating Quality in Educational Spaces (EQES). However, the framework will continue to evolve, particularly in light of results from this pilot project.

EQES was launched in early 2007, initially as the OECD Facility Performance Evaluation pilot project.

THE EQES PROPOSAL

The project methodology for EQES borrows from post-occupancy evaluations, facility performance evaluations and more recent research on usability analysis, which seek to systematically evaluate the performance and/or effectiveness of one or more aspects of an educational space in relation to a broad range of space-related and other issues. Research tools such as stakeholder questionnaires,

walkthroughs, focus groups and observation are traditionally used in such studies. The EQES pilot project also draws from research on the role of educational space as a tool to facilitate the changing needs and demands of curriculum and pedagogy.

Schools participating in this pilot will be evaluated according to two broad policy criteria identified in the CELE Organising Framework on Evaluating Quality in Educational Spaces:

- **Capacity of the space to increase access and equity to education.** The space provides equitable access to learning, offering adequate space capacity in relation to demand. This issue acknowledges the fundamental right of all individuals to access an educational institution, and addresses the problems of over-occupancy, which can compromise building users' comfort and safety, and under-occupancy, which can have a detrimental effect on school ethos.
- **Capacity of the space to improve educational effectiveness and promote acquisition of key competencies.** The space supports diverse learning programmes and pedagogies. It facilitates the interaction of individuals in socially heterogeneous groups; empowers individuals to manage their lives in meaningful and responsible ways by exercising control over their learning environment; and provides an environment that encourages students to use tools interactively.

The three objectives of the pilot project are:

- **To develop user-friendly, cost-effective tools and data gathering strategies,** using agreed-upon methodologies. It is important that results from these evaluations feed back into optimising the educational effectiveness of these spaces. In addition, the development and piloting of tools will serve to validate the approach used in the full project.
- **To identify good practices and “lessons learned”** in participating countries, with a view to improving the quality of educational spaces throughout the life cycle of the building.
- **To explore the contextual issues and constraints** to improving the quality of educational spaces, and to establish broad benchmarks against which the performance of the school can be evaluated.

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Students completing a pre-test of the online student questionnaire for the EQES pilot project in the computing room in a São Paulo school in Brazil



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PARTICIPATING COUNTRIES AND SCHOOL SELECTION

In order to ensure the project's manageability, a small selection of schools from a limited number of countries participated: between one and five secondary (ISCED 2) schools in Brazil, Mexico, New Zealand, Portugal and the United Kingdom (England and Scotland). No attempt will be made to produce quantitative comparisons between countries.

Each participating country nominated a national co-ordinator (or primary contact) for the project. In most countries, a larger research team was assembled from universities and other institutions – such as the University of Sao Paulo (Brazil), University of Salford (England), University of Monterrey (Mexico), IST (Portugal), and Architecture and Design Scotland – to assist national co-ordinators with project management and data analysis.

National co-ordinators used the following criteria to identify schools to participate in the project:

- an assessment of a recently constructed school to inform the design of future school construction;
- an assessment of an existing school to determine the merits of renovating the building versus abandoning all or a substantial portion of the building;
- an assessment of the effectiveness of a recently remodelled or expanded building;
- an assessment of the planning and design process for improving the quality of education in a school.

Countries also used criteria such as school size, demographic context (*i.e.* rural vs. urban areas) and socio-economic background in selecting schools.

Table 1. **Number of schools selected by country to participate in EQES**

Brazil	1
Mexico	5
New Zealand	2
Portugal	4
United Kingdom: England	2
United Kingdom: Scotland	6

DEVELOPING THE EQES MANUAL: A COLLABORATIVE EFFORT

A group of international experts was assembled to work with the CELE Secretariate to write the manual for the project; the 70-page manual was finalised in early 2009.

The manual's principal objective is to provide a practical, user-friendly guide for those involved in the EQES Pilot Project: national co-ordinators and research teams, teaching staff, students, school principals and others. It comprises the following four tools, which countries are required to use:

- **Priority-rating exercise for OECD quality performance objectives.** The objectives of this tool are 1) to better understand the broader contextual issues and constraints that may be having an impact on quality in educational spaces, and 2) to establish broad benchmarks against which the performance of the school can be evaluated. Twenty-two OECD quality performance objectives were developed, each broadly reflecting the criteria in the CELE Organising Framework.
- **Educational facility analysis.** The objectives of this tool are 1) to provide descriptive information on the school, with a view to informing the social, economic, demographic, educational and operational context of the schools' quality performance objectives, and 2) to collect comparative data from staff and students on *objective* – or quantifiable – aspects related to quality in educational spaces.

- **Student and staff questionnaires.** The objectives of this tool are 1) to better understand how staff and students perceive quality in educational spaces in terms of accessibility, use of teaching and learning spaces, comfort, the school's image, safety and security, and maintenance, and 2) to collect comparative data from staff and students on *subjective* aspects related to quality in educational spaces. Web-based questionnaires are available to collect these data.
- **Focus group.** The objectives of this tool are 1) to explore in greater depth common and conflicting issues raised in student and teaching staff questionnaires, and 2) to develop common recommendations (by focus groups of students and teaching staff) about improving the school's educational spaces. Each school is required to set up at least one student focus group and one teaching staff group.

For each tool, the manual presents the objectives, research questions, expected and actual response time, step-by-step instructions on how to implement the tool (including minimum requirements), and a presentation of how the results will appear in the final report. Questionnaires, activity reports and post-project feedback report templates are provided as annexes to the manual.

A degree of flexibility was built into each research tool to allow countries to adapt them to local conditions and country-, local- or school-specific issues. National co-ordinators and research teams can therefore modify the tools in consultation with the CELE Secretariat.

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THE IMPLEMENTATION PHASE

Pre-testing the student and teacher questionnaires

In April 2009, colleagues in Brazil and Portugal conducted a successful pre-test of the web-based student and teacher questionnaires. In Brazil, 14 students aged 11-13 and six teachers were asked by the school principal to participate in the activity. The pre-test was conducted in the school computer room. In Portugal, 12 students aged 14-17 (secondary level) and one teacher completed the questionnaire.

Students and teachers reported that the questionnaire items were relevant and easy to understand. Completion time for the questionnaires was much shorter than the expected 30 minutes, although the slow Internet connection speed often slowed down the process.

As a result of this pre-test, guidance was developed to assist those responding to the student and teacher questionnaires, relating to for example the importance of choosing the most appropriate venue for the test, preparing the test room in advance and ensuring that links are working, understanding the value scale, providing technical and other support to respondents during the test, and having a back-up plan in case of technical problems. In addition, translations of some items were modified.

Translation and verification issues

As national co-ordinators in Brazil, Mexico and Portugal started to organise translations of the EQES manual, it became clear that some general guidance was required to assist them and project teams to translate and verify material. Translation and verification is a resource-intensive process, and although it was not deemed necessary to translate all parts of the EQES manual from English into the target language, countries were required to translate all questionnaires and activity reports.

In Brazil, Mexico and Portugal, one to two professional translators completed an initial translation, which was then checked by the EQES co-ordinator and project team. The national co-ordinator completed the final verification of the manual. All deviations from the original language version were meticulously

recorded, including additions, deletions, mistranslations and difficulties with the English version. Some of the difficulties with the original version were easily resolved, while others must be addressed by all participating countries at the end of the pilot project.

The four language versions of the manual – English, Portuguese (Brazil and Portugal) and Spanish – are available online at www.oecd.org/edu/facilities/evaluatingquality.

Activity reports, analysis and questionnaires

National co-ordinators were requested to submit three short activity reports over the course of the implementation phase. The initial activity report, which all countries have completed, requested information on schools selected, contacts for the pilot project, a timeline for the project, use of tools, country modifications to the manual and translation issues.

In their initial reports, countries said that they planned to complete the Educational Facility Analysis and student and staff questionnaires before the end of 2009. Countries will make their final activity reports to the CELE Secretariat by March 2010.

In addition, some countries added several questions to the student and teacher questionnaires to better reflect local issues and conditions. For example, one country developed 40 additional questions for students, teachers and school principals to inform country-specific issues related to the planning process and improving design quality. Similarly, three countries reported that they will conduct an additional focus group of administrators or other school building users.

FINAL REPORT AND FUTURE WORK

The final report of the pilot project will be published in 2010, and will be composed of two sections. The first section will draw together the results from individual schools to summarise common issues, policy messages and recommendations, and will suggest ways to apply the methodology in future studies. The second section will report the results from individual schools, with plans, photos and quotations from those participating in the project. A school summary will provide a general description of the school, its special features, important quality issues/themes at the school and national policy priorities concerning quality in educational spaces. Results from individual tools will also be presented.

Following the publication of the final report and a thorough review of the implementation process – which will include a review of the manual, the CELE Organising Framework, project costs and the impact of the project by all participating countries – the CELE Board of Participants, under the guidance of the CELE Group of National Experts on Education Facilities Evaluation, will consider the feasibility of developing the project on a larger scale.

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