

OECD국가의 핵심 교육시설 이슈와 사례들

Some of Main Stream of Educational Facilities in OECD Countries

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Editorial Board

한국교육시설학회는 2005년도 춘계학술발표회에서 OECD 회원국가의 교육시설위원회(PEB: Programme on Educational Buildings) 위원장인 리차드 일란드(Richard Yelland)씨의 특강을 기획하였다. 이 특강에서 리차드 일란드 위원장은 OECD 회원국들이 지속적인 경제성장과 사회적 유대, 그리고 자기개발에 기여하는 양질의 평생교육을 이룩할 수 있도록 지원하는 교육시설위원회의 핵심적인 활동과 다양하고 특색있는 학교시설의 사례를 소개하였다. 본 학회 편집위원회에서는 이 날 특강에서 이야기된 내용 전문과 학교사례를 편집하여 소개한다.

Organisation for Economic Co-operation and Development(OECD)

The Programme on Educational Building is a part of the organisation for Economic Co-operation and Development, the OECD. OECD was established in 1961 and its main objective is to "Achieve the highest sustainable economic growth and employment, and a rising standard of living in its member countries, and thus to contribute to the development of the world economy"

The OECD has been described as 'a club of like-minded countries' - an inter-Governmental group of market economies which want to work together in a wide range of areas, including trade, agriculture, the environment and employment, as well

as education. Here is the current list of members. Korea joined the organisation 9 years ago. The Directorate for Education has a mission:

The Directorate for Education

"Assisting members and partners to achieve high quality lifelong learning for all that contributes to personal development, sustainable economic growth and social cohesion" And it sets out to fulfil this mission through two-year programmes of work. For 2005-06 our activities are contained under six broad objectives. PEB work relates to several of these.

PEB Activities

I could spend a lot more time talking about our work one education but I need to move on to talk about the activities of PEB.

I shall look at these under seven headings

1. Evaluating quality in educational buildings
2. Safety and security issues
3. Planning, design and management in tertiary education
4. Facilities for early childhood education
5. Providing for students with special needs
6. Collecting and comparing data
7. Looking to the future

1. Evaluating Quality in Educational Buildings

"Educational facilities need to accommodate both the known and identifiable needs of today, and the uncertain demands of the future. They should provide an environment that will support and enhance the learning process, encourage innovation and be a tool for learning and not a monument to aesthetics. They need to be conceived not as an exclusive provision for the few, but as a resource to support lifelong education and recreation for all. They should provide good value for money. They should seek to minimise running and maintenance costs, ensuring that today's design decisions do not impose an unnecessary burden on future generations. Finally, they need to be designed to safeguard the wellbeing of the planet as well as the wellbeing of the individual".

That was a quotation from 'Designs for learning'.

The schools and colleges that I will now show were all featured in this book and were selected for special attention because they demonstrate how education can be improved by the buildings in which it is carried out. Evaluation of the impact of facilities on educational outcomes has been a priority for PEB in recent years. Quantification of that impact is extremely difficult, and it has not been attempted in these cases. Nevertheless, it is possible to establish a set of criteria against which to judge the whole. These include firstly their aesthetic appeal, which while partly subjective can also be the subject of common agreement, and secondly, functionality, the appropriateness of the teaching spaces, circulation and other areas to the education programme.

A third criterion concerns the site and the environment of the institution. Some are naturally more favoured than others, but the imaginative use that is made of the site and the integration of the buildings within it can both contribute to education. The quality and quantity of equipment available and the way in which buildings and equipment are utilised to support

educational projects are a further factor. The international jury which selected these schools and colleges also took into account how the buildings are able to provide a comfortable and welcoming environment not only for pupils and students, but also teaching and non-teaching staff, and parents and other visitors. They looked at not only the evidence of the drawings and photographs, but also what the users had to say in written submissions. Where evidence was available, account was taken of the results achieved by the school, as compared with the norm for institutions of the type.

2. Safety and Security Issues

Our work is not all about quality of design however. Although safety has always been a priority for those responsible for schools, in recent years it has been the focus of renewed attention. Children cannot refuse to go to school because a building is unsafe. Society has an ethical responsibility to provide a safe learning environment for its most vulnerable and valuable members. Moreover, school facilities serve as shelters for communities during emergencies, and the loss of a school can have wide-reaching social and economic costs. International initiatives such as the 2005 World Conference on Disaster Reduction and the United Nations' International Decade for Natural Disaster Reduction have also brought considerable international attention to school safety issues. Yet, school buildings remain subject to damage and collapse from both natural and man-made hazards. To address these issues, strategies and tools need to be developed that can be used to identify the principles of and barriers to safe school construction as they relate to both natural and man-made hazards. The focus of this activity will be both general identifying and analysing the overall nature of risk and specific addressing particular hazards such as earthquakes and fires.

We have recently published two reports based on collaborative work. The first, shown on the left, is

called 'Keeping schools safe in earthquakes' and it is the outcome of a meeting of leading experts in seismology. Natural disasters such as earthquakes, floods and fire occur frequently, and there is a significant role for the international community to reduce the risk and minimise the impact of such disasters. However, despite the fact that disaster prevention and mitigation is a global issue and that there is considerable expertise in design and construction, school buildings still collapse when they should not, and preventable injury, loss of life and material damage still occur. The second report is more wide-ranging, and highlights the successes and challenges of a wide range of national, regional and local policies and programmes that address school safety issues, from earthquake safety to school violence and bullying.

The risk of incident is not evenly spread, within or between countries. Risk assessment is a key first step to understand the dangers. A number of strategies, methodologies and tools have been developed to address a range of natural and man-made hazards in different countries with the goal of identifying, analysing and evaluating risk in educational buildings. This activity will focus on the development of an international risk assessment framework and instrument, and will begin with an experts' meeting. Following the meeting, a framework will be published and the development and testing phase of the risk assessment instrument will begin, with a view to launching it at the end of 2006. The draft OECD Recommendation Concerning Guidelines for Earthquake Safety in Schools will be presented to OECD Council in early 2005. Thereafter, PEB will assess national school seismic safety programmes using the guiding principles outlined in the Recommendation: review the extent to which countries have implemented the elements of an effective national school seismic safety programme; and present options for countries to improve their school seismic safety programmes.

3. Planning, Design and Management in Tertiary Education

Higher -or tertiary - education is going through a period of unprecedented change. Policy reform at national or state level seeks to respond to society's needs and expectations in a developing global market. New forms of learning and research on one hand and new tools that impact on the planning and design of higher education institutional facilities on the other hand make it clear that the next generation of campus facilities will differ dramatically from those built in the past, sometimes even as recently as at the end of the 20th century. Yet to reflect on new or remodelled campuses and higher education facilities means thinking about the long-term future as much as the present.

Innovative research seeks architectural and managerial answers that make efficient use of the resources invested in planning campuses, designing, building and renovating facilities, as well as running universities. Changes in the planning and design of those facilities must serve the educational process and improve the quality of the learning environment. Campus space should be flexible and allow for changes in our understanding about how people learn. Sustainability is another growing concern for planners and managers; an increased interest in facilities that respect the environment has already led to the promotion of specific design practices and methods for assessing building performance and meeting sustainability goals. High performance higher education facilities are also built to optimise investments and must be operated and maintained efficiently. Educational property managers now more than ever before have to optimise their operating and investment strategies to face the increasing need for continuing investment in asset maintenance. Here are some recent examples chosen from among many.

4. Facilities for Early Childhood Education

In 1998, the OECD Education Committee approved the launching of a comprehensive Review of Early Childhood Education and Care Policy. Starting Strong, the analytic report of the review of early childhood education published in 2001, provides a detailed description of the review's objectives, analytical framework and methodology. The final report from the review, provisionally entitled Starting Strong 2, will be published in 2005. The review Web site is: www.oecd.org/edu/earlychildhood.

PEB has not previously undertaken work specifically focused on early childhood centres, a growing area of interest for school architects. More than perhaps for any other age group, educational programming in the early childhood years depends greatly on the quality and utilisation of space, as the following examples show.

PEB is working with partners in Scotland to organise an international conference on developments in educational buildings and facilities for young children. In the context of the principal conclusions of the thematic review, the meeting will provide an opportunity to compare examples of successful and innovative facilities in a range of member countries and to visit local schools and centres. The conference will be held in December 2005, in Edinburgh. In the course of preparing the conference, potential case studies will be identified and analysed, leading to the identification and publication of a set of guidelines for designers and policymakers.

5. Providing for Students with Special Needs

The role of infrastructure in facilitating the provision of education for students with special needs is especially important. However, a number of issues must be addressed when considering the infrastructural needs of these students. As defined by the OECD Centre for Educational Research and Innovation (CERI), "special needs" can refer to stu-

dents with disabilities, including students with multiple and mild to severe disabilities, students with learning and behavioural difficulties, and "at risk" students. In addition, in some countries, the movement towards the inclusion of students with special needs in regular educational settings, and away from the placement of students in separate special education facilities has been an important social and education policy development. In other countries the development of special educational facilities with links to regular educational facilities has received greater attention. PEB last addressed some of these issues in the publication Educational Facilities for Special Needs (1994).

Our intention is to organise an international conference which will explore how best to provide for students with special needs through educational infrastructure in regular and special educational settings in pre-primary, primary, secondary and tertiary institutions. The conference will address the principles and challenges of designing and planning facilities; examine national programmes and local initiatives; and consider how to evaluate them. The outcomes of this conference will be a set of international principles of good design and planning for students with special needs, with examples of successful implementation of some of these principles by countries.

6. Collecting and Comparing Data

Resources such as the Programme for International Student Assessment (PISA) database, the OECD Education Database and the World Education Indicators (WEI) project provide a wealth of national-, school- and student-level data and indicators with which to monitor education systems. Despite this progress, there have been relatively few data collected on educational facilities. In 1997, for example, the Property Management Division of the Ministry of Education in New Zealand, in cooperation with PEB, conducted a survey on educat

ional facilities to which five countries responded.

And very few studies have focused on the importance of the built environment in providing quality learning environments. However, researchers and administrators in a number of countries have defined evaluative criteria for school buildings and conducted evaluations of their school buildings. Post-occupancy evaluation (POE), for example, is one methodology that has proven effective in evaluating the degree to which the school physical environment meets the needs of students, teachers, non-teaching staff, facilities managers, heads of institutions and the wider community, and thus supports the goals of the educational process.

A country contact will be nominated by each PEB Governing Board member, who will be responsible for providing data and attending meetings related to the activity. An electronic pre-questionnaire survey will then be distributed, which requests general availability of data. The prequestionnaire survey will take the form of a priority-rating exercise, whereby countries can indicate the policy relevance, feasibility (in terms of human and financial resources, and availability of data) and appropriateness of proposed indicators for an annual nationallevel data collection (i.e.as opposed to other methods of collection such as a school survey) on educational facilities.

An experts' meeting will be held in Portugal in June to define a set of international criteria or prin-

ciples for assessing quality in educational facilities; to discuss methodologies that have been used to measure these criteria in different countries, such as post-occupancy evaluation, and the positive and negative aspects of implementation of these methodologies in local, regional or national settings; and to propose an international methodology for assessing quality in educational facilities.

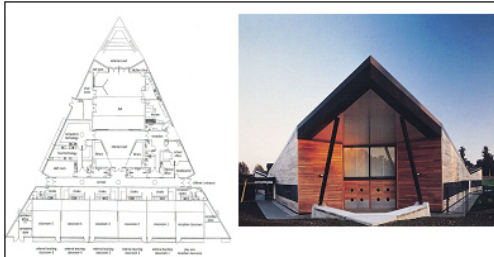
7. Looking to the Future

We are now planning a sequel to 'Designs for learning' to be published at the end of next year and we will produce an exhibition based on the publication. Through the publication and exhibition, examples of buildings and grounds both educational facilities and other learning environments that serve all levels of education will be disseminated. The publication and subsequent exhibition will include full-colour photographs, plans and descriptions of the selected institutions. Submissions are welcome. The deadline is 16 May. There are also opportunities to sponsor the publication. To finish up with, here are a few more pictures of facilities which attracted the attention of the jury last time round.

www.oecd.org/edu/facilities, richard.yelland@oecd.org. This is where you can find out about our work, and how to contact me. Thank you for your attention.

8. Examples of Educational Facilities in OECD Countries





Notley Green County Primary School, Essex, UK

OECD 40 Education



Tomaree Education Centre, Salamander Bay, New South Wales, Australia

OECD 41 Education



Yanomian Elementary School, Hiroshima, Japan

OECD 42 Education



Complexo Escolar do Rodo, Peso da Régua, Portugal

OECD 43 Education



Instituto de Enseñanza Secundaria "Cardenal Lopez Mendoza", Burgos, Spain



Heinävaara Elementary School, Kiittelysaara, Finland

OECD 44 Education



Haagse Hogeschool, The Hague, Netherlands

OECD 45 Education



Willow Tree Primary School, Ealing, UK

OECD 46 Education