



PEB Exchange, Programme on Educational Building 2002/12

Design Down Process:
Designing a School in
Iceland with Its Users

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<https://dx.doi.org/10.1787/730618174512>

DESIGN DOWN PROCESS: DESIGNING A SCHOOL IN ICELAND WITH ITS USERS

This is an example of an architect working with future school users in Iceland to design their school. The architect has developed a process that he uses with students, staff and the local community to create a learning environment in which the design intends for freedom and creativity to be integrated into the students' daily learning experiences.

The school to be built, called *Ingunnarskoli*, aspires to be a place for learning that is based on the needs of children, their families and their community. It is a basic school at *Grafarholti*, a new neighbourhood on the edge of the capital. The school is designed for 400 students in grades one through ten, the standard basic school configuration in Iceland.

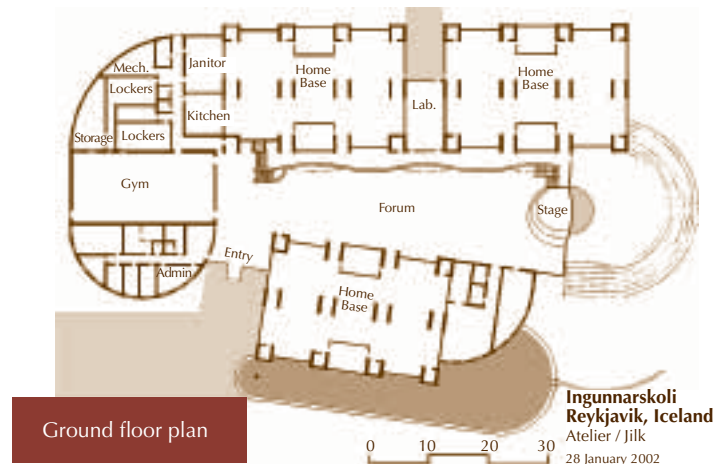
Design Down process

The process for making decisions about this new school is called "Design Down". It starts with the biggest issues and moves toward more detailed aspects. Its goal is to make all the parts fit together, like a puzzle. Through this process, the physical space will support all elements of how the school is organised (students, time, curriculum, staff, etc.) and thus fit with the learning process. The Design Down Committee, a multi-stakeholder group of parents, teachers, administrators, students, employers, neighbours and other concerned citizens, make the decisions.

The process starts with looking at the major cultural issues – the community challenges, opportunities, aspirations and assets – and the school's learning signature, learning expectations, the learning process and the learning environment. These four learning elements are described below.

Learning signature

The learning signature focuses on what is special and unique; it becomes the identity of the school. While most school-planning processes include consideration of mission, vision, values and logo, these components are rarely linked together in a compelling and highly meaningful signature for the school. Giving a school a special focus provides coherence, consistency and spirit



to the school and thereby adds to the quality of the learning experience and accomplishments.

The Design Down Committee for *Ingunnarskoli* defined four themes as their highest priorities: community, nature, spirit and flow.

Learning expectations

Learning expectations are those things that are expected from the school by the community, parents and students. These expectations are consistent with what is special about the school and the larger community issues. They represent the students' accomplishments as promised by the school in exchange for the public's investment in teaching and learning. Eight learning expectations were set for *Ingunnarskoli* such as the ability to seek knowledge, learning the basic skills needed to access and evaluate information; and the development of effective communication skills using written, oral and visual forms of self-expression.

Learning process

The learning process consists of the design for curriculum, instruction and assessment. As learning is viewed as a continuous process, learning inside the school and in the community are valued and closely co-ordinated. The learning process for the school at *Grafarholti* includes the following:

- Integrate the subjects.
- Use individual, small group and large group learning.
- Include learning in multiple settings: outdoors, elderly care centre, homes and Internet.
- Integrate learners of different ages.
- Involve students in managing their learning, teaching them to take responsibility to plan, organise and maintain their environment.
- Involve teachers working together and being trained in new teaching methods.
- Address the real needs of the community, producing useful products and services.



Architect's model of *Ingunnarskoli*



East elevation



South elevation

Learning environment

The learning environment includes decisions about facilities, equipment and technology. Designing the learning environment begins with a detailed review of the learning signature, expectations and process, as well as organisation, partnerships and staff, in order to develop a supportive environment. The learning environment extends well beyond the school building to include all of the settings used by learners (for example, workplace, home, public library and community). Smaller learning environments placed strategically around the community optimise the use of partnerships. The close blending of school and community ensures that learning is rigorous and relevant. A learning environment networked by computers provides each learner with essentially her or his own school.

The learning environment was approached through the committee's four signature themes and includes:

- A library, sports facilities, a dining area, an art gallery and a coffee/pastry shop to bring the community into the school.
- The heart of the school as an open forum space, like a city hall, to reinforce the idea of democracy.
- A parents' room.
- Grouping two grades together.
- Direct links to outdoors from the teaching spaces.
- A greenhouse for growing vegetables.
- A sod roof.
- A stream or creek to flow through the school.

Design concept

The design concept is a synthesis of the Design Down parameters, the site, the landscape and the historic precedents. Having brought these components together, the committee took on the task of designing the new school.

Three "use variations" are embraced by the design concept in order for the school to start with what its users

are familiar with and then "grow" into the more innovative learning systems. The three variations are on a continuum from "traditional classroom" to the more recent "students at their own workstations in small groups" to future focused "learner and teacher determined" possibilities. Corresponding space-defining elements include non-permanent walls (traditional variation), landscaped partitions (team-based variation) or what the learners develop (learner determined variation).

The Design Down Committee set the spatial concept: light as the spiritual essence of the design; the forum as the major organising space; the interior being visually connected to the exterior; vertical level changes being limited to "split levels"; and the roof being partially sod. The architect further developed the ideas.

Freedom and creativity

The key element in this physical environment design is the ability of the children and teachers to create their own learning environments rather than having everything predetermined for them, as is the case when schools are over designed. Predetermining nearly every aspect of children's interaction with their environment limits the range of possible learning experiences, minimising the development of creativity. The approach to the design of *Ingunnarskoli* has intentional ambiguities to provide a space which enriches creativity by allowing the children the freedom to create their own environments.

This article is based on a document entitled "Freedom and creativity: a story of learning, democracy and the design of schools". The complete text and images are available on the Internet at <http://www.designshare.com> or from its author:

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