

Annex 1: School Design Principles

A well-designed school can positively affect learning outcome¹ by enabling children and teachers to be placed at the right level to engage in learning. The school design should focus on issues such as location, aesthetic of the building, size of classrooms, comfort in terms of seating, lighting, temperature, ventilation, noise level and access to sanitation.

The engineering firm responsible for preparing the design of the modular school must consider all environment and context aspects, as well as hazards associated with the school design principles introduced in Section 3.2 of this document. Design considerations include:

- Identify risks and hazards to children's safety, wellbeing and school experience
- If not avoidable, incorporate features in the school design to minimize and control risks to an acceptable level "at the source."
- Include preventive measures in the school design, particularly in the structure, site layout, buildings orientation, floor layout and in the selection of construction material and finishes.

This section introduces the school design principles and associated hazards and solutions to be captured in the Design Brief (see Annex 2), and that need to be addressed in the development of the school design. Generic design samples are available in Annex 3.

1. Inclusive

The objective is to create a school environment that respects and responds to diversity by meeting the differing needs of children.

Accessibility is an enabler that allows children and adults with disabilities to enjoy their rights and entitlements. It is also a precondition for children and adults with disabilities to live independently and participate fully and equally in society.

UNICEF's involvement in school construction is an excellent opportunity to advocate for physical accessibility and quality of learning environments within the local context through the implementation of inclusive design and construction excellence.

The Design Brief also needs to identify other types of barriers that need to be removed to allow the participation of all children to the school activities. Some common barriers include:

- Institutional barriers and attitudes towards children with disability
- Social stigma and attitude linked with disability
- Barriers to access information and educational material
- Limited understanding and awareness of accessibility, disability and ability.

Key points to consider

- [CCC principle 'Do no harm'](#) addresses the specific needs of the most vulnerable groups of children and women – including children with disabilities – and develop targeted programme interventions
- Establish a disability focal point, or task force to represent disability issues in humanitarian coordination mechanisms and engage actors with experience in addressing the needs of children with disabilities
- Create partnerships with government stakeholders and civil society organizations that have expertise on disability, including NGOs, disability service providers
- If accessibility is considered from the start, any additional cost to create an accessible school is negligible. The adaption in later phases may be costly
- Whenever children participate in any initiative, children with disabilities also need to be included
- Along with the inclusive design, reasonable adjustments are needed to promote inclusion.

Reference

Technical guidance on inclusive infrastructure design and accessibility of education programme under humanitarian action:

- [Technical Cards on Accessibility](#)
- [Access to School and the Learning Environment](#)
- [Including children with disabilities in humanitarian action](#)

2. Healthy & Protective

The objective is to create healthy and protective school environments that prevent the children and staff from immediate injury or disease and promotes prevention activities and attitudes against known risk factors that might lead to future illness or disability.

Some common hazards to consider in the Design Brief are:

- Traffic accidents around the school

¹ [UNESCO's International Institute for Educational Planning](#)

- Violence, vandalism and bullying
- Injuries due to accidents within sports fields and play area
- Building damage due to natural disaster and fire
- Waterborne diseases linked to lack of, or insufficient hygiene practices
- Hazardous construction materials including asbestos, paint, cleaning agents
- Poor finish of construction work including uneven surface, sharp edges and corners.

3. Effective for Learning

The objective is to design a supportive, creative and functional school environment that promotes good quality learning and teaching processes and practices.

Specific consideration should be given to the quality of environmental elements that affect the active learning and teaching:

- Space allocation: Insufficient allocation of space to efficiently carry out activities, move and move, as well as the inappropriate location of the facility that pose hazards to users
- Acoustic and noise control: Noise from traffic, neighbourhood or other activities within school and classroom that distract and interfere with learning
- Illumination and visual comfort: High contrast of light in the room created by very bright sunlight from a window, or insufficient illumination for reading, writing and following their teacher's instruction
- Air quality and thermal comfort: Thermal discomfort (overheating or cooling) and lack of ventilation (fresh air) that affects effective teaching and learning.

4. Connected

The objective is to create child-centred, family-focused and community-based school environments.

Consideration should be given to creating a school environment that:

- Is welcoming, reflecting local culture, values and heritage, encouraging local partnership in education
- Promotes child and community participation in school events that helps children, parents, and teachers to establish harmonious relationships
- Is open and connected to communities to provide local learning needs.



© UNICEF/UN0331834/Abdul



© UNICEF/UN0315239/Nakibuuka



UNICEF/UN0313932/Pudlowski



© UNICEF/UN0310960/Zea