Designing Schools of the Future to Build Education Resilience post COVID-19

World Bank

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Example from Russia

Central space design

Minimized locked down spaces within groups

Maximized play and interaction areas

Transformations
Example from Russia

Traditional approach

Open multifunctional

Refocus of learning environments

Area of movement
Interaction
Possible meetings
Experiences

- 40m²
- 4
- 20
- 3

Area of movement
Interaction
Possible meetings
Experiences

- 250m²
- 8
- 60
- 9

Time of open space use
9:00 - 11:00
Example from Russia

Active space per child
- 2.5 sq.m. → ~9 sq.m.

Total space of the building
- 4700 sq.m. → ~3000 sq.m.

Energy savings
- 0% heating
- 0% electricity
- 0 USD → up to 70% heating
- up to 30% electricity
- up to 1.6 mln USD
- over 40 years of operation
The Impact of School Infrastructure on Learning Outcomes: Systematization of Knowledge

https://openknowledge.worldbank.org/handle/10986/30920
Physical and Non-Physical Space Characteristics Matter

Source: https://openknowledge.worldbank.org/handle/10986/32598
Learning gains on most national and international tests during one year are equal to between one-quarter and one-third of a standard deviation (Woessmann, 2016). Thus, in the TIMSS 2019 pilot the difference of five test scores is equivalent to a learning gap of one year of schooling.
What Does This All Mean for the Schools and our Projects?

- Changed spaces
- Changed teaching and learning
- New teacher training
- Reformed assessment

A typology of six spatial arrangements found in schools:

- a. Classrooms along corridors
- b. Classrooms with a breakout space
- c. Classrooms with flexible walls
- d. Classrooms with flexible walls and breakout space
- e. Open plan with the possibility of creating classrooms
- f. Open plan

Source: OECD 2019.