



HOW ACCESS TO THE BUILT ENVIRONMENT AFFECTS ACCESS TO EDUCATION

Prioritizing Accessibility in the Design of Learning Environments



Olivia Mae M. Asuncion, AIA | Project Architect, Quattrocchi Kwok Architects
Suzie Scher, MS, OTR/L, CPACC | Accessibility Consultant, Scher Spaces



Scher Spaces

ABOUT THE PRESENTERS

Olivia Mae M. Asuncion, AIA

olivia.m.asuncion@gmail.com | instagram: @the.ramp.enthusiast

- ❑ Project architect at Quattrocchi Kwok Architects in Oakland, California working on K-12 Educational Facilities
- ❑ Environmental Design Researcher / Fulbright Scholar
- ❑ Accessibility Advocate
- ❑ U.S. Access Board Public Member



ABOUT THE PRESENTERS

Suzie Scher, MS, OTR/L, CPACC

suziescher@scherspaces.com | www.scherspaces.com

- ❑ Founder and CEO of Scher Spaces- an accessibility consulting firm
- ❑ Occupational Therapist, school-based
- ❑ Certified Accessibility Consultant
- ❑ Service Dog Puppy Raiser
- ❑ Former Playground Project Manager





WHAT IS DISABILITY?



MODELS OF DISABILITY

THE MORAL AND/OR RELIGIOUS MODEL Disability as an act of God

THE MEDICAL MODEL Disability as a disease

THE SOCIAL MODEL Disability as a socially constructed phenomenon

THE IDENTITY MODEL Disability as an identity

THE HUMAN RIGHTS MODEL Disability as a human rights issue

THE CULTURAL MODEL Disability as culture

THE CHARITY MODEL Disability as victimhood

THE ECONOMIC MODEL Disability as a challenge to productivity

THE LIMITS MODEL Disability as embodied experience

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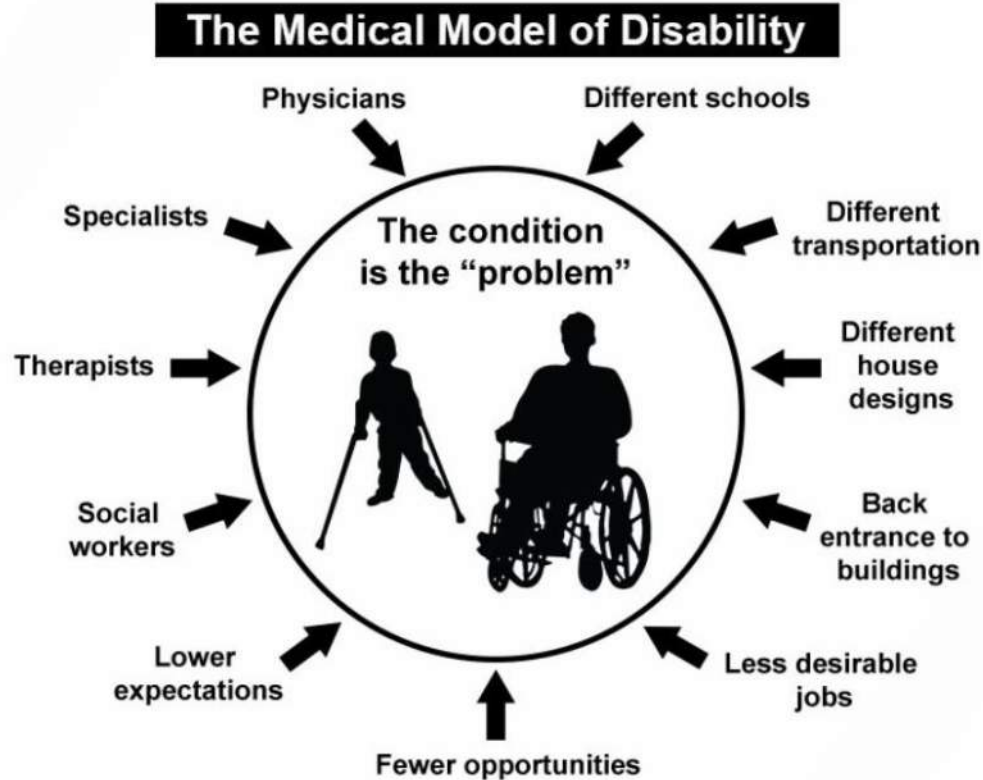
THE ECONOMIC MODEL Disability as a challenge to productivity

THE LIMITS MODEL Disability as embodied experience

THE MEDICAL MODEL

The medical model defines disability in terms of biological impairments. Disability is viewed as a problem that is caused by medically-diagnosed genetic disorders, disease, trauma, or other health conditions. Disability is treated as a biological problem that diminishes quality of life and needs to be treated with professional medical care.

THE MEDICAL MODEL



THE SOCIAL MODEL

The social model of disability is a direct response to the medical model. Rather than place the definition of "disability" entirely on the person with a disability, the social model points out that society creates disabling conditions. To a large extent, "disability" is an avoidable condition caused by poor design.

THE SOCIAL MODEL



THE SOCIAL MODEL



Disabled is...
NOT A BAD WORD

Which **Language** should I use?

Do you have Lived Experience?

No

Depending on the Region it may be more common for people to opt for Identity-First language, Disabled Person or Person First Language, Person with Disability. Use the language that is most suitable. If you want to ask someone do so respectfully.

Yes

Choose the language that is most comfortable for you. It's your right to identify, and it's your lived experiences.



**Respect a person's right to identity,
it's their **lived experiences**.**

ACCEPTABLE LANGUAGE

THIS LANGUAGE IS OUTDATED...

Differently-Abled/Handicapped

Special Needs

Suffers from.../Victim of.../Stricken with...

Able-Bodied

...USE THIS INSTEAD

Disabled person/Person with Disability

Functional Needs

They have.../...are living with...

Non-Disabled



Equitable experiences and
opportunities begin with
ACCESS TO EDUCATION



CASE STUDY: PHILIPPINES RESEARCH

Education Legislation

MARCH 24 1992

RA 7277

Magna Carta for
Disabled Persons

MARCH 7 1997

DO 26, S. 1997

Institutionalization of
SPED Programs in
All Schools

MARCH 11 2022

RA 11650

Instituting a Policy of Inclusion and
Services for Learners with Disabilities
in Support of Inclusive Education Act

1992

2002

2012

2022

Accessibility Legislation



The image shows a horizontal timeline of accessibility legislation. At the top, a dark teal banner contains the title 'Accessibility Legislation' in white. Below this, a light gray background features a series of vertical lines representing years. A large orange arrow on the left points to the right, indicating the progression of time. Four orange callout boxes are positioned above the timeline, each containing a year and a description of a legislative act. The timeline itself is represented by a gray bar at the bottom with white chevrons pointing right, and the years 1992, 2002, 2012, and 2022 are marked along it.

1982
BP344
(Accessibility Law)

2008
BP344 Amendments

2017
Department of Education
Minimum Performance
Standards and Specifications

2021
DepEd Minimum Performance
Standards and Specifications
Re-Published

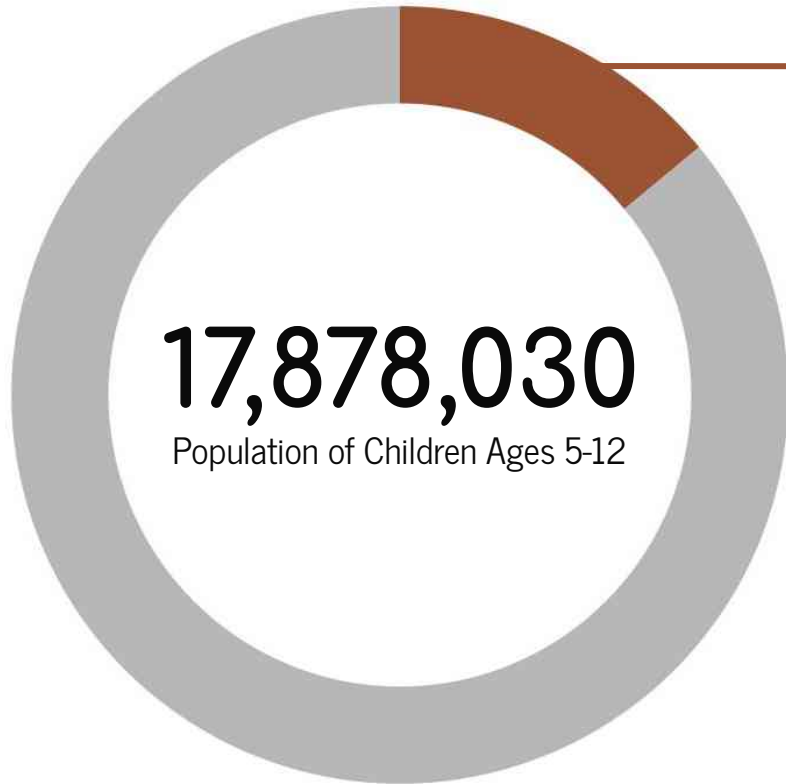
1992

2002

2012

2022

Population with Functional Difficulties



17,878,030

Population of Children Ages 5-12

2,502,924 (14%)

Population of Children Ages 5-12 With Functional Difficulties (Per PhilHealth Estimates),

1,078,100 Functional Difficulty in Seeing

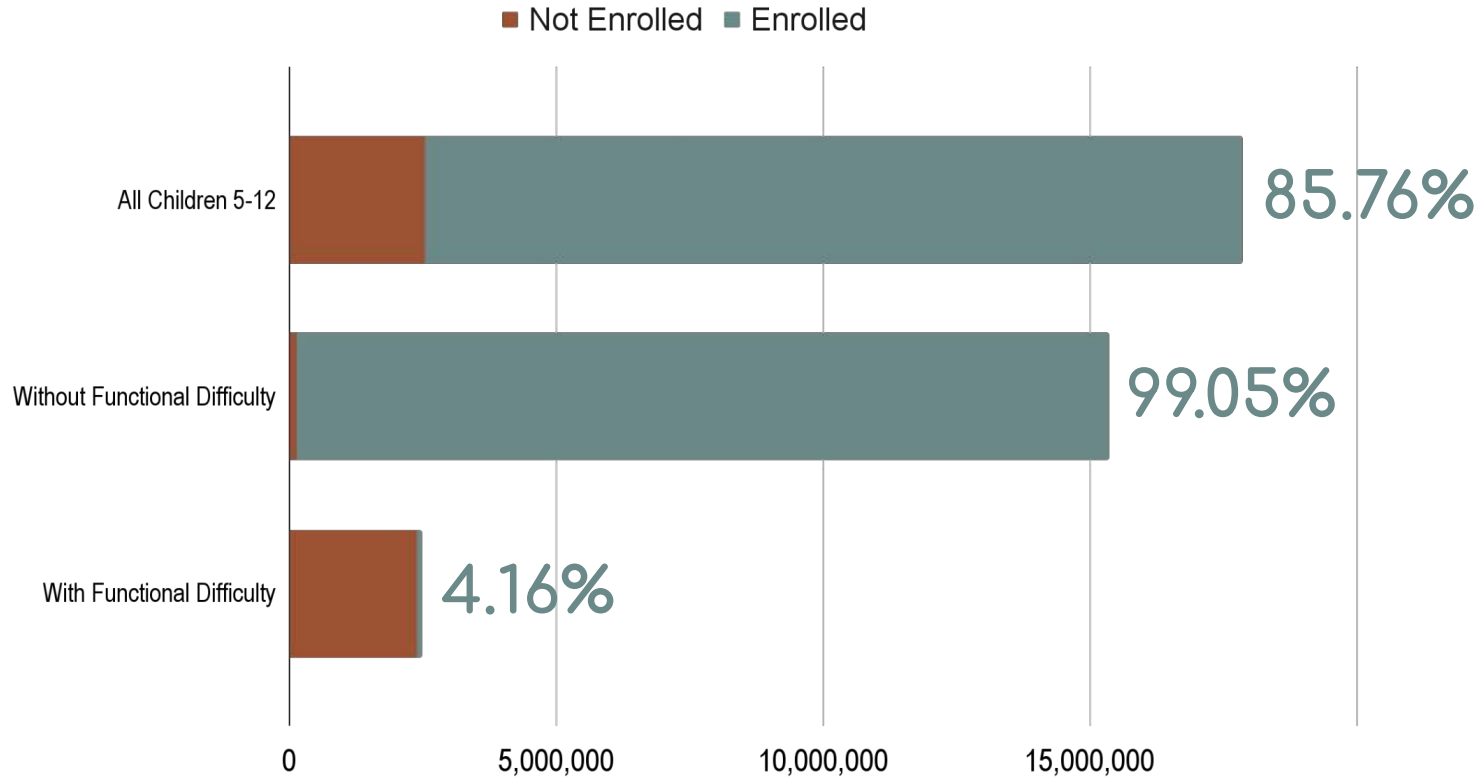
419,288 Functional Difficulty in Hearing

437,486 Functional Difficulty in Walking, Climbing or Grasping

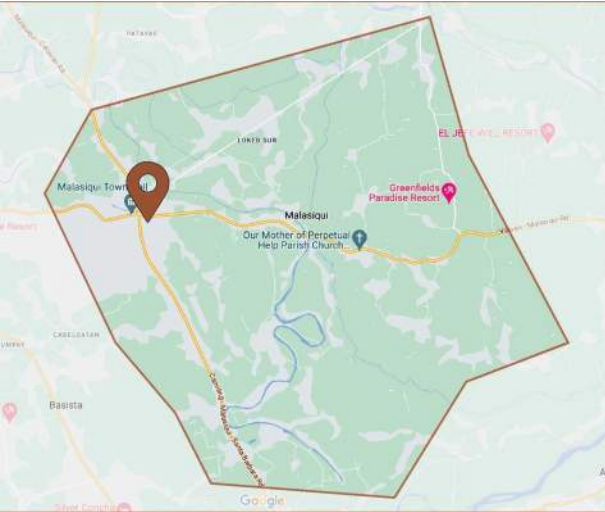
494,733 Functional Difficulty in Remembering or Concentrating

786,949 Functional Difficulty in Communicating

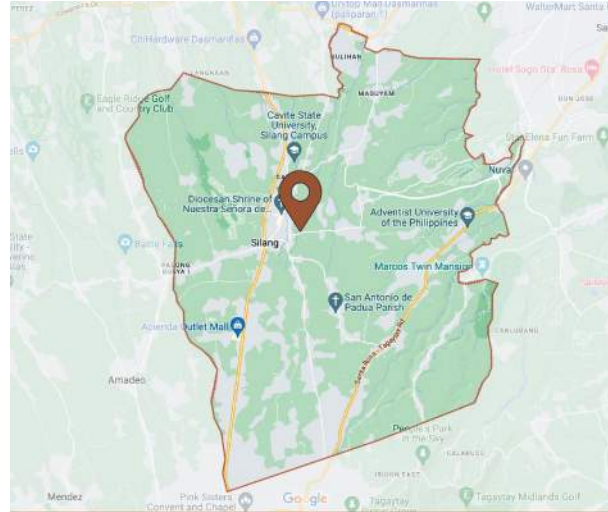
K-6 Enrollment Rates



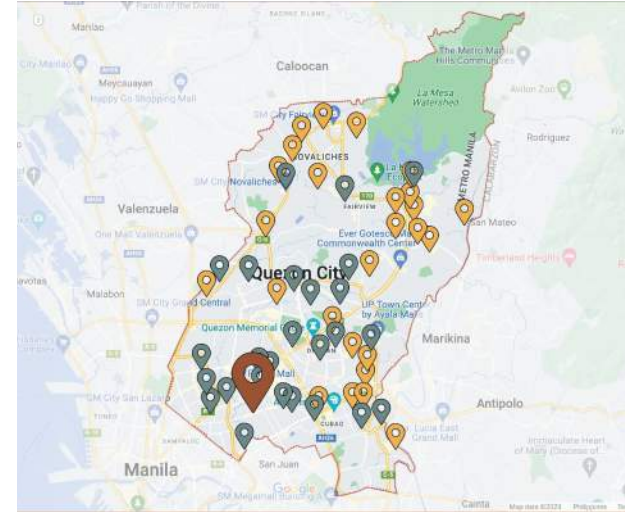
Where are the SPED schools?



Malasiqui, Pangasinan
Malasiqui Central Elementary School
1st Class Municipality
131.37 km² (50.72 sq mi)



Silang, Cavite
Cavite Institute
1st Class Municipality
209.43 km² (80.86 sq mi)



Quezon City, Metro Manila
St. Joseph's College of Quezon City
Highly-Urbanized City
161.11 km² (62.20 sq mi)

“Forest School” versus City School



Silang, Cavite
Cavite Institute
1st Class Municipality
209.43 km² (80.86 sq mi)



Quezon City, Metro Manila
St. Joseph's College of Quezon City
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Public Transportation

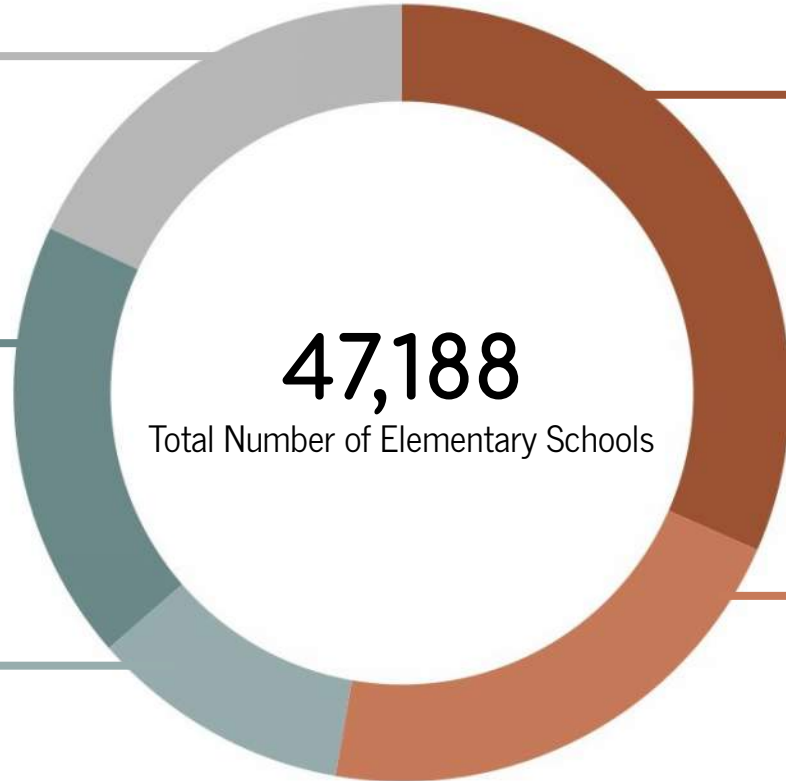


Elementary School Accessibility

8,513 (18.1%)
Did Not Report

8,664 (18.3%)
Report Having
100% Accessible Buildings

5,123 (10.9%)
Report Having more than 50% but less
than 100% Accessible Buildings



14,919 (31.6%)
Report Having
0% Accessible Buildings

9,969 (21.1%)
Report Having more than 0% but less
than 50% Accessible Buildings

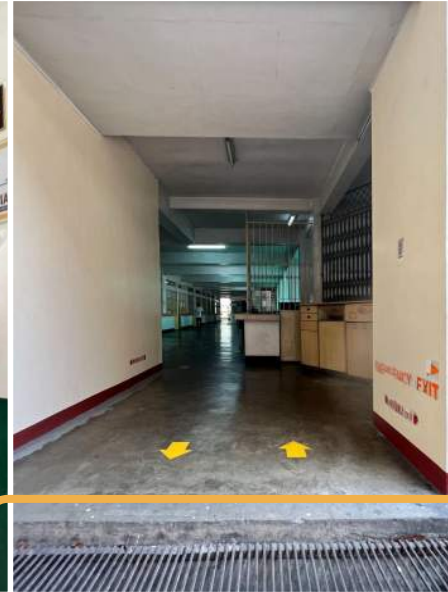
47,188

Total Number of Elementary Schools

Elevation Changes



Elevation Changes



Elevation Changes in Community



Ramp Usability and Safety

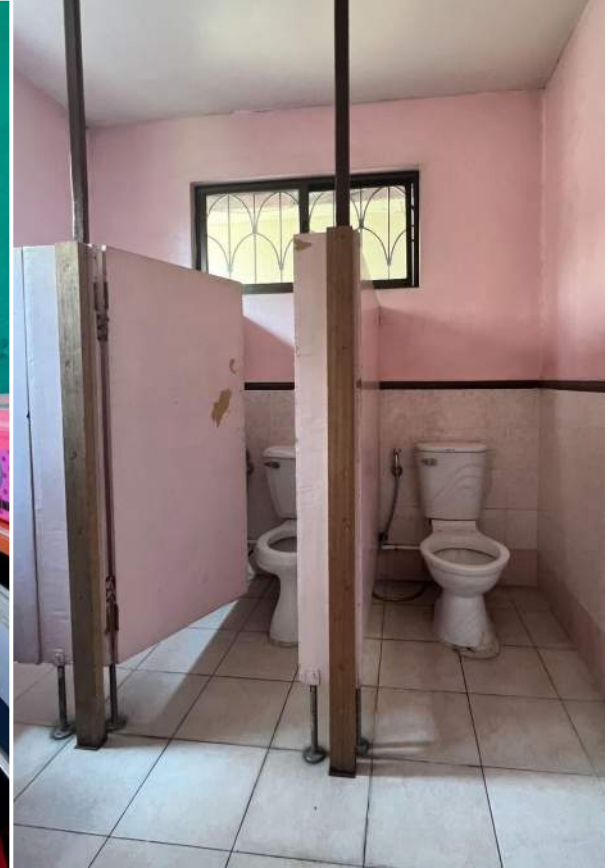


Ramp Usability and Safety

Ramp Usability and Safety



Mobility Into and Within Restrooms

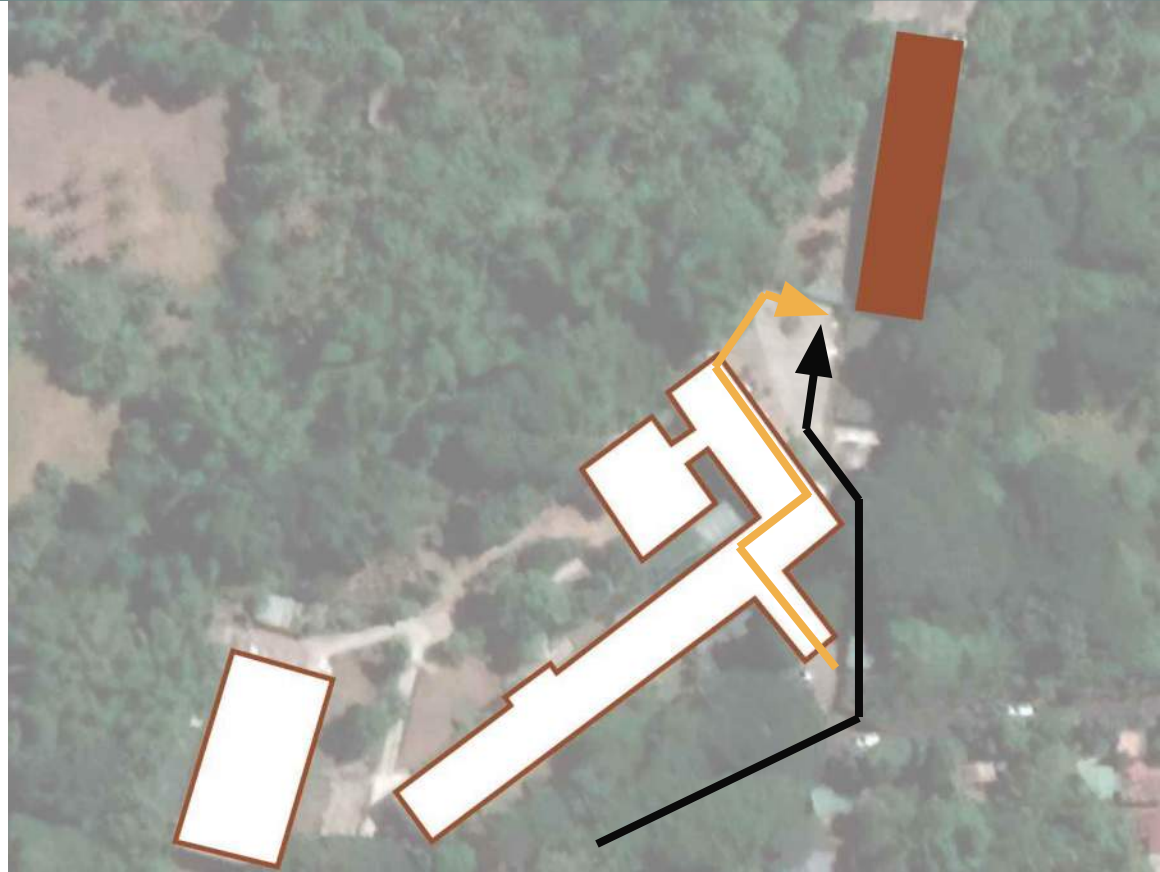


Mobility Within Restrooms



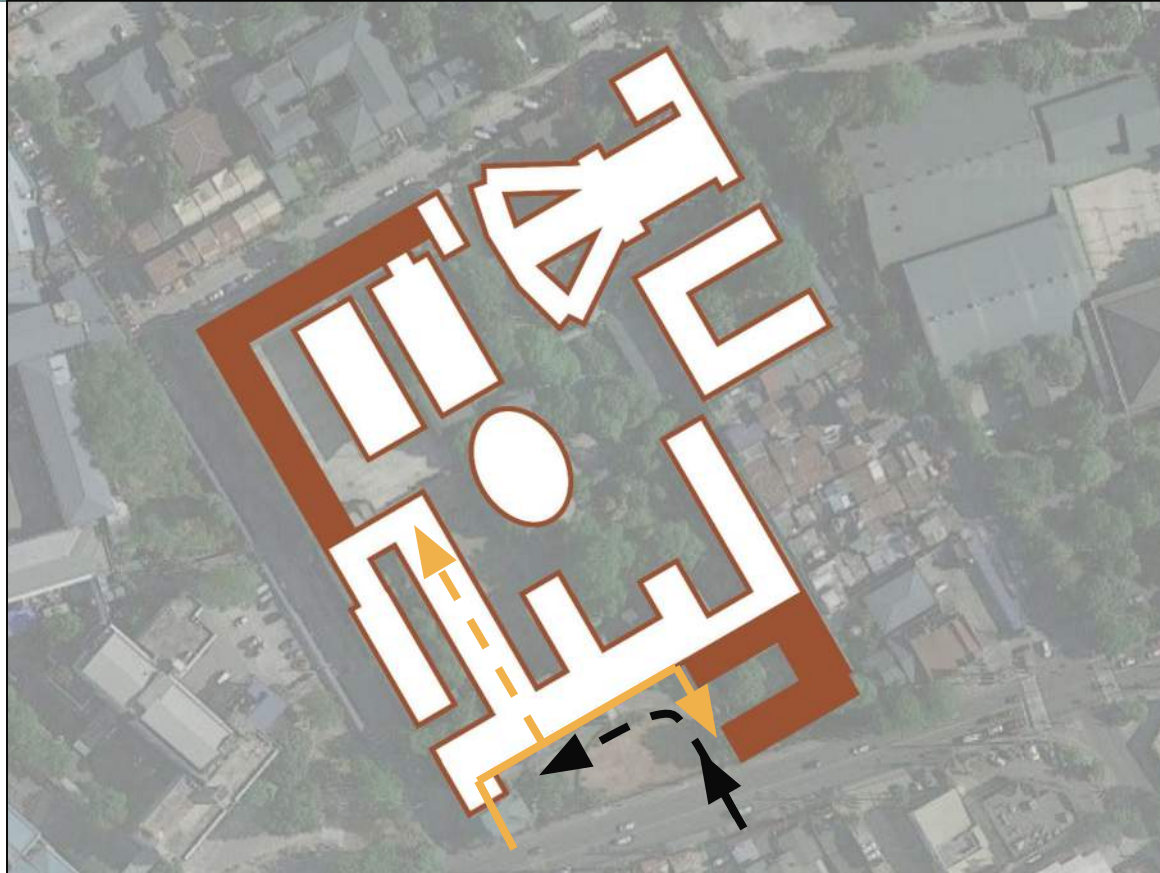
Inclusivity of Campus Design

- SPED-exclusive and mainstream elementary classes are within the same building
- Vehicle drop-off directly in front of building
- Long, pedestrian route from the main campus entrance



Inclusivity of Campus Design

- SPED-exclusive classes are separated from mainstream classes
- Vehicle drop-off is the same
- Separate pedestrian entrances



Sensory Walk and Garden



Room Arrangements and Furniture



Room Arrangements and Furniture



Transition Seating Outside of Classroom



Distracting Windows



OFFICIAL STATEMENT

ON THE ISSUE OF ZERO-BUDGET FOR SPED

September 19, 2022 — The Department of Education has proposed a budget of P532 Million for SPED for FY 2023.

Unfortunately, despite our earnest efforts to advocate for our learners with special needs, it was not considered in the National Expenditure Program (NEP). This is true for two other programs that were excluded from the NEP.

This is a recurring circumstance every year, and DepEd is not at a loss because we always work with members of Congress to find alternative funding for DepEd programs.

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Program

Thank

Inadequate Funding

Unfortunately, despite our earnest efforts to advocate for our learners with special needs, it was not considered in the National Expenditure Program (NEP). This is true for two other programs that were excluded from the NEP.

Facts About SPED Funding

- ❑ Private school SPED teachers are not eligible to get fee waivers to participate in Continuing Education Training. They must rely on the commitment of school administration to fund for that training.
- ❑ High cost of private school tuition and additional costs of special accommodations





SUPPORTING SCHOOLS THROUGH OCCUPATIONAL THERAPY

Role of Occupational Therapists in Schools

School-based occupational therapy practitioners use meaningful activities (occupations) to help children participate in what they need and/or want to do in order to promote physical and mental health and well-being. Occupational therapy addresses the physical, cognitive, psychosocial and sensory components of performance. In schools, occupational therapy practitioners focus on academics, play and leisure, social participation, self-care skills (ADLs or Activities of Daily Living), and transition/work skills. **Occupational therapists expertise includes activity and environmental analysis and modification with a goal of reducing the barriers to participation.**

Role of Occupational Therapists in Schools

Occupational Therapists have a birds-eye view of learners accessibility challenges in all areas of school campuses; classrooms, bathrooms, playgrounds and play spaces, multi-use rooms/cafeterias, auditoriums, therapy work areas, courtyards, libraries, locker rooms, parking lots and campus paths of travel.

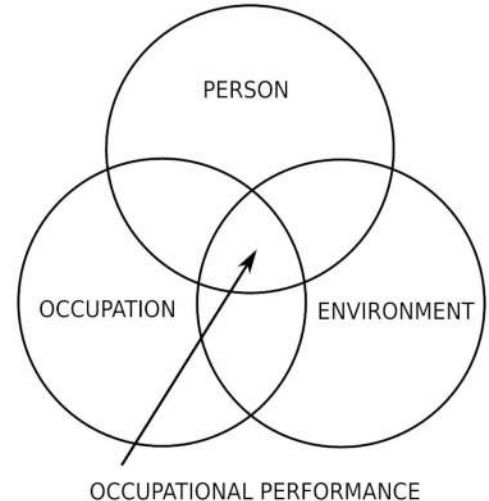


Person-Environment-Occupation Model

The Person-Environment-Occupation (PEO) Model is an occupational therapy model of practice.

The PEO Model emphasizes that there are transactional relationships between the person, environment and occupation throughout lifetime that can affect occupational performance.

Essentially, every purposeful or meaningful activity or task that a person performs is (or part of) an occupation, therefore how well a person can perform an occupation in the environment is known as occupational performance.

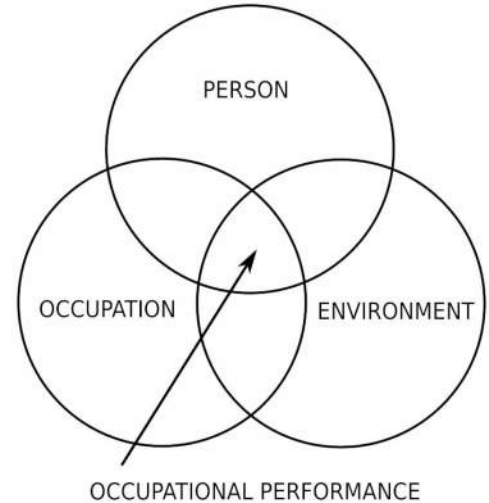


Person-Environment-Occupation Model

When the school environment is fully accessible, learners occupational performance is improved.

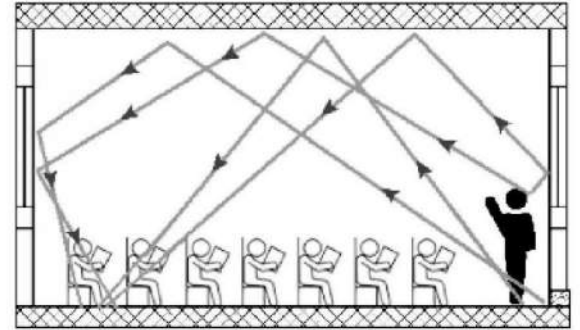
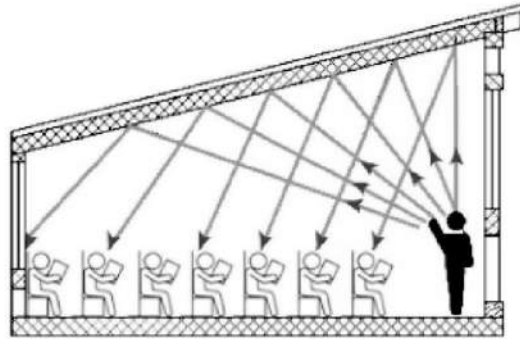
Occupational Therapists modify the environment as much as possible (seating, materials, sensory input). In most schools, **the lack of accessibility is a major barrier to consistent academic achievement.**

Occupational Therapists can only do so much to improve an inaccessible environment. **Lack of accessibility also impacts teachers and staff ability to support learners with disabilities.**



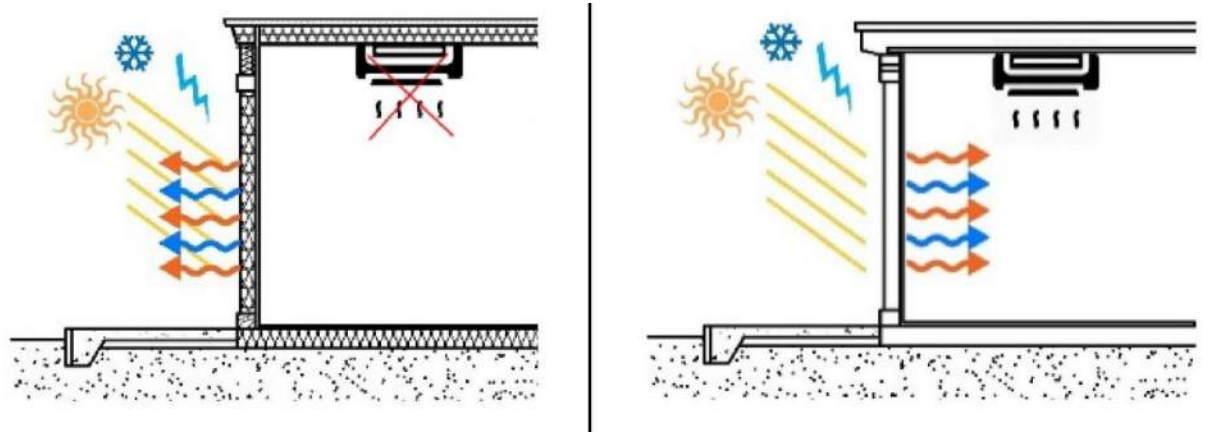
Ceiling Angles

Sloped ceilings decrease or prevent echos which can be distracting or overstimulating for some learners. Noise also impacts hearing impaired and Deaf learners.



Placement of HVAC Units

Insulated walls create a comfortable environment without the need for an HVAC unit in the classroom. Interior HVAC units increase noise and can be overstimulating for some learners.



Interior Wall Colors

Cool colors provide a calm environment. Bright or bold colors can be overly alerting for some learners.



Window Placement and Opacity

Windows with traditional placement and full transparency create high levels of visual distraction.



Breakout and Sensory Rooms

Breakout rooms provide opportunities for focused work time in a small setting. Sensory rooms provide a space for learners to take breaks and regulate their sensory systems or de-escalate from an upsetting behavioral episode.



Flexible Furniture Options



Flexible seating provides options for all learners, moveable layouts, and more accessible paths of travel. Modular storage meets the needs for storing supplies and materials while giving staff agency to determine their placement.

Sensory Friendly Classroom



Building sensory elements into classrooms improves occupational performance for all learners, regardless of ability level and learning style.

CREATING ACCESSIBILITY

Why Accessibility Matters

1 in 4 Americans has an identified disability (this doesn't include folks who haven't received a diagnosis or choose not to disclose their disability(ies)).

These numbers do not necessarily reflect temporary disabilities. **5.6** percent of working Americans experience a short-term disability (six months or less) every year.

Accessibility and Universal Design

Accessibility requires paying attention to our natural physical diversity and implementing good universal design choices. This includes designing for the physical world as well as for technology (websites, computers, mobile devices, television, movies, social media, etc.)

According to the Center for Universal Design, “Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”.

Principles of Universal Design

Equitable Use

- Useful and marketable to people of all abilities.
- Example: Automatic doors



Flexibility in Use

- Accommodates a wide range of preferences & abilities.
- Example: Adjustable chair



Simple and Intuitive Use

- Easy to understand, regardless of language knowledge, experience, or concentration level.
- Example: Universal Symbols



No mask, no entry.

Perceptible Information

- Clearly communicates regardless of sensory abilities or ambient conditions.
- Example: Train Station Platform



Tolerance for Error

- Minimizes hazards & consequences from accident or misuse.
- Example: Car auto unlocks when driver exits but the key remains inside



Low Physical Effort

- Effectively & easily used with minimum effort.
- Example: Ramp to building



Size & Space for Approach and Use

- Appropriate size & space is provided for approach, reach, manipulate, and use for all body sizes, postures, or mobility.
- Example: Multi-level service desk, or automatic sinks



Included
in Design

7 Principles of Universal Design

Enhancing Mobility

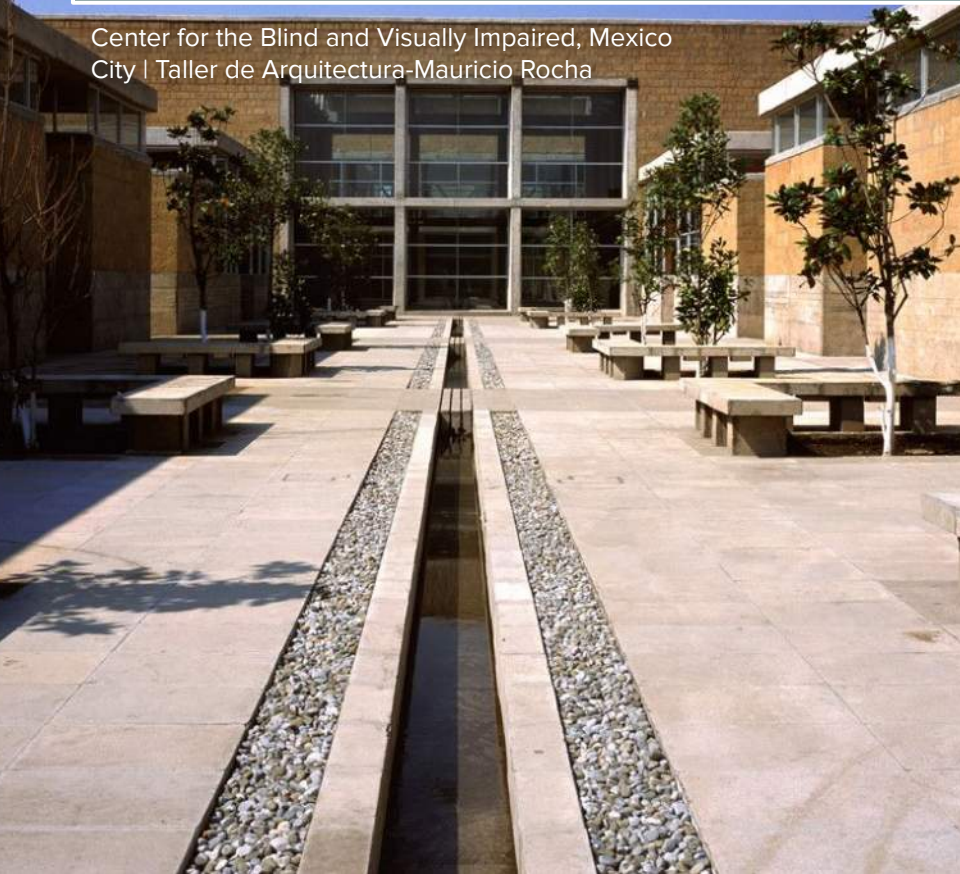
Ed Roberts Campus, Berkeley, CA
| Leddy Maytum Stacy Architects



UC Berkeley Lower Sproul, Berkeley, CA
| Clay Holden Architects

Wayfinding for All

Center for the Blind and Visually Impaired, Mexico
City | Taller de Arquitectura-Mauricio Rocha

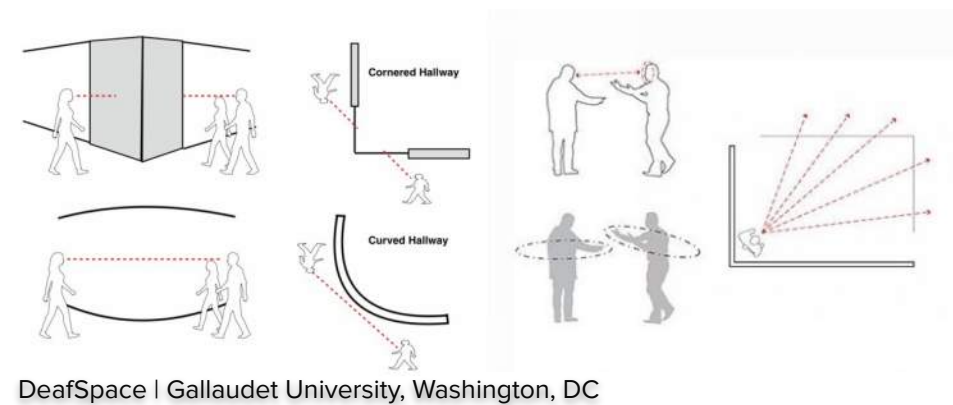
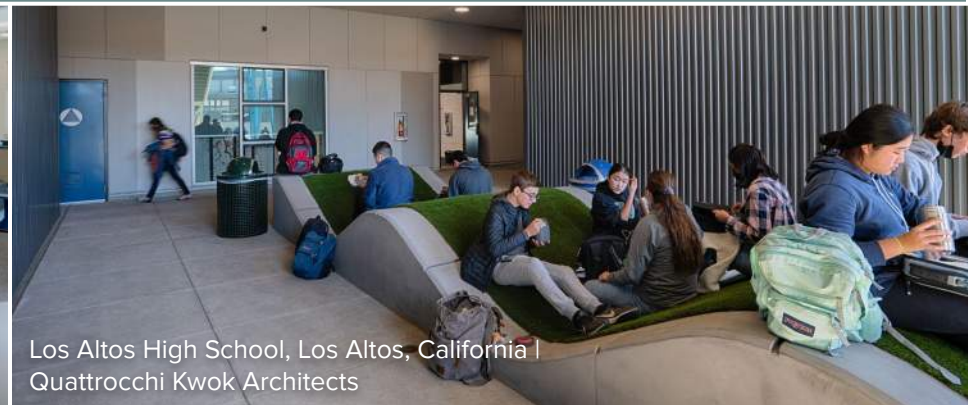


Hazelwood School, Stirling, UK |
Alan Dunlop Architect Limited



Lighthouse for the Blind, San Francisco, CA |
Mark Cavagnero Architects

Choice to Participate



It is up to us — the districts, the educators, the architects — to
prioritize equity in the built environment for disabled students



It's an investment to the radical diversity and
inclusivity of future generations



**WE HAVE THE POWER AND THE
INFLUENCE TO MAKE A CHANGE**

THANK YOU!!!

QUESTIONS? COMMENTS?

For more information, contact us via the following:

Olivia Mae M. Asuncion, AIA

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