INCLUSIVE EDUCATIONAL SPACES AND ARCHITECTURE

Goal 10- **Reduced Inequality**

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Abstract: -

School education programme from Pre-school to graduation level plays a prime role in not only in India but all over the world. The ancient value based education was revised with more and more practical to inclusive approach. School is a spatial need which implies creating an environment where basic education programmes are planned in such a way to develop the general knowledge along with the building morals in which all type of children should participate and stand as a successful individual in society. By ensuring that all children have access to basic education of good quality. The teaching and learning process should evolve from extrovert to introvert space type considering overall personality development of any child in its growing needs. How the inclusive policy made us to rethink about the effect of physical space environment and its impact on barrior free teaching and learning skill development capacity in differently abled students. This paper focuses on the DIVYANG SCHOOL OF SKILL DEVELOPMENT School learning spaces, their reasons behind it and effects on both teaching and learning activity. Literature study and guidelines by various expertise people working in this field through interview and their articles. The discussion involves the case studies of especially abled schools planning before and now. Direct and indirect observations, questionnaire methods to get right approach of designing the learning spaces as per changing trends.

Keywords: -

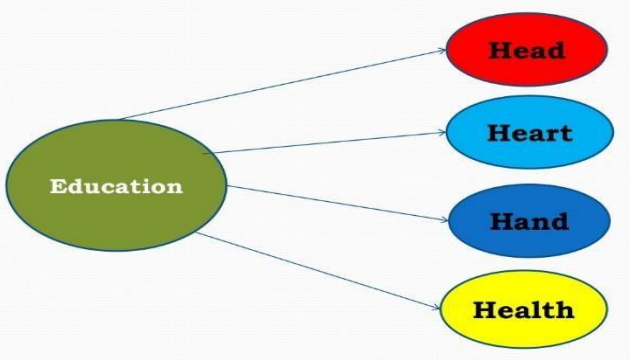
Learning, inclusive, space, school, education, barrior, differently abled

Introduction:

The inclusive policy made us to rethink about the effect of physical space environment and its impact on barrior free teaching and learning skill development capacity in differently abled students. The World Health Organisation (WHO) estimates that 10% of any population are disabled (Thomas, 2005a). In addition, approximately 85% of the world's children with disabilities under 15 live in developing countries (Helander, 1993, cited in Robson & Evans, no date). It is further thought that with disability, or impairment, being both a cause and consequence of poverty, the Millennium Development Goals cannot be achieved without a specific disability focus (DFID, 2000). People with disabilities have lack of teaching learning facilities, yet the goals related to these issues currently ignored though either we are developing or developed countries. The WHO estimates that up to 50% of disabilities are preventable or prone to become disable, with 70% of blind and 50% of hearing impairment in children in developing countries (DFID, 2000). Although this can be seen as more of a universal design spaces issue than a disability politics one, its link to healthcare, malnutrition and poverty makes disability a development issue.

- **Sarva Shiksha Abhiyan (SSA):** SSA has been operational since 2000-01 in partnership with state governments to achieve the goal of Universalization of Elementary Education. This adopts a ZERO rejection policy under SSA, which ensures that every child with special needs irrespective of the kind, category and degree of disability, is provided meaningful and quality education. It covers different components under education for children with disability(i.e. Early detection and identification, Functional and formal assessment, Education placement, Aids and appliances, Support services, Teacher training, Resource support, Individual Educational Plan (IEP), Parental training and community mobilisation, **Planning and management**, Strengthening of special schools, **Removal of architectural barriers**, Research, Monitoring and evaluation, Girls with disability).

- There after **The National Action Plan for Inclusion in Education of Children and Youth with Disabilities (IECYD)-2005** made by **MHRD** emphasizes the inclusion of children and young person with disability in all general educational settings from Early Childhood to Higher Education. The action plan ensures the provision and facilities should be available, accessible, affordable and appropriate learning space environment for inclusion of children and youth with disabilities in all available general education setting.



Literature study:

- **School for all is need of today** - (Mohanty, 2016) The school is a user friendly space to learn life skills ranging from academics to cultural and sports activities for effective communication and the students sustainability as an individual in future along with physiological and moral growth while moving in the society around. In order for EFA to berealised, children with disabilities, which are among the most marginalized and at risk for inclusion, must be ensured accessto quality education.
- It should have holistic approach for the underlying causes of exclusion.

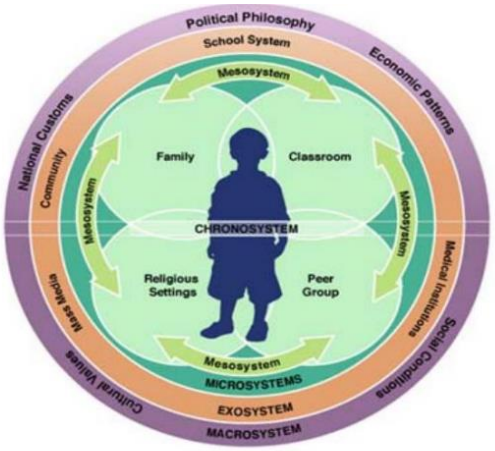
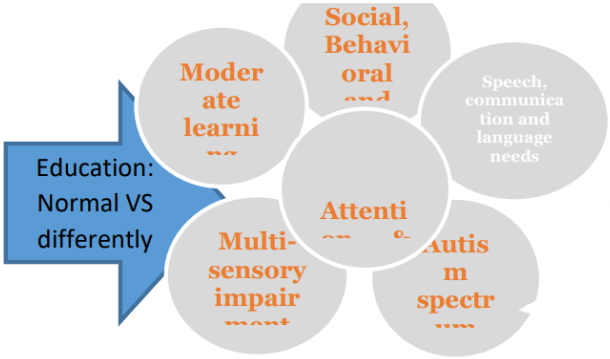


Figure 2 : Bronfenbrenner's Ecological Model of Child Development (Source: www.online.uncg.edu.)

- **History of disability school facilities start** - (Unicef, 2016) The inclusive education starts its journey from special education which concerns with segregation through integrating children with special needs (CWSN). Inclusive education has day by day became a focus about the development of educational policy and practice around the world (Farrell and Ainscow, 2002). Pijl et al., (1997) these educational scholars, have described inclusive education as a 'global agenda'. Also became priority policy objec equal opportunities also increased importance in liberal democracies in India where Right to Education is also constitutionalized.



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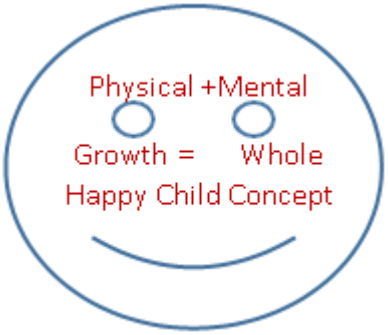


Challenges over Normal Education

www.ccdisabilities.nic.in

Difference between Normal school and Divvying school education – Speaking about the term Disability, it is more about physical and mental inabilities while special needs are School planning spaces for students with Disabilities. - (Unicef, 2016) - Children with disability study either in a special school or in a regular mainstream school. It is possible for these children to cross over from a special to a regular mainstream school if and when they want to. Special Education as a separate system of education for disabled children outside the mainstream education evolved way back in the 1880s in India. It was based on the assumption that children with disability had some special needs that could not be met in mainstream.

- **Accessibility or creating equal access -**

If an able student can access a classroom or a learning space, students with disabilities should be able to access it as well. For example, at the time of designing stage, in a school auditorium or theatre classroom, Architects should install stage ramps that every student can safely navigate, along with installing traditional stairs. Furthermore, too often, schools have separate classroom entrances for students with disabilities, which can make students feel isolated. This is especially common with portable classrooms or modular buildings. Ramps allow Reachability to students with disabilities to use the same entrances as their peers. The right Design elements also make every classroom more accessible and welcoming, not just classrooms but primarily by students who have disabilities. By making all spaces on campus more inclusive, every student will have the chance to succeed.

School classroom, at Pune, India

https://hmcarchitects.com/news/inclusive-schools-designing-for-disabilitv-in-classrooms/

Teaching Learning spaces: Multiple choices to be made available for varied disability students, while moving around in any class room or space. Students get choices for seating while learning or interacting either of normal chairs or wheelchairs with varied height of tables or cupboards arrangements. The class environment is associated more with psychology of space ambience, colours, tactile floors, wall textures.

School classroom, at Pune, India

- **Multidimensional seating and working places** - In classrooms, auditoriums, or multipurpose spaces with sloped floors, Architects should find areas of the space where people in wheelchairs can safely sit, and beable to sit in multiple places within the space to be able to have different experiences/vantages as

Figure 1Maciej Sydor , https://www.researchgate.net/figure/Mobile- kitchen-furniture-in-applications-for-the-disabled-and-structural-principles_fig9_270214945https://www.researchgate.net/figure/M obile- furniture-in-applications-for-the-

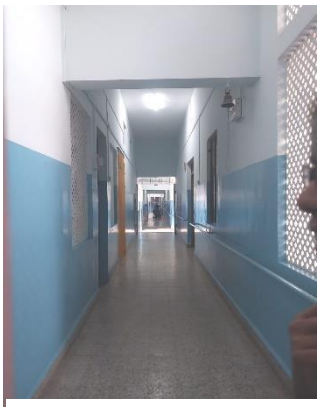
others. They can either mark off these spaces or install structures around these areas that wheelchairs can brace against.

- **Flexibility of use –**

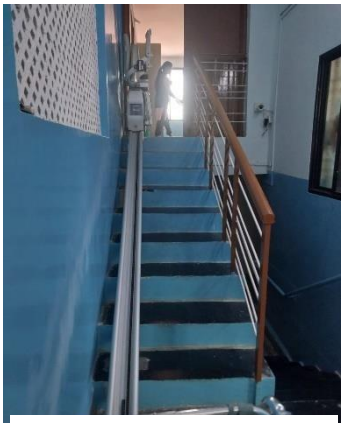
Architects should install handrails, marker boards, desks, bookshelves, and other essential classroom tools at age-appropriate heights so all students can reach them. Architects should also consider how easily students in wheelchairs can access these tools. Locating shelving, and marker boards at their height, or providing individual marker board, purchasing flexible and agile furniture is another great way to design for disability in classrooms.

- **Horizontal and vertical circulation:**

Ramps are always accessible to everyone. However, the grading of the ramp is important to keep in mind, as ramps that are too steep may be unusable for some students. This problem often arises when architects do not design totally with accessibility in mind and rather locate ramps or paths in hilly areas or on campuses located on an incline. A solution is to create paths that consider the grades and work with the grades to design steps and ramps that allow both able and non-able students to experience the site similarly. This may mean that the paths are not the shortest or most direct paths / routes the different places around campus. Moreover, locating the buildings on flatter portions of the site.



School classroom, at Pune, India



School classroom, at Pune, India

In multi-level buildings, elevators are essential for making every floor accessible. However, Architects have to take care not to remove essential program space or compromise the design in the process, while still maintaining the required maximum travel distance. Experienced Architects know how to strategically place an elevator in a building so it looks like it has always been there. However, sometimes Architects may have to sacrifice program space or aesthetics to install an elevator near classrooms. Accessibility should always take priority.

- **Drinking water facility** and approach to it are on a level surface and well-maintained. The surroundings should be paved/ concrete and level. There are lever-type handles for the taps. There is alowered washbasin for children using mobility aids such as wheelchairs, crutches, and walkers. There are clear signs for the drinking water areas.

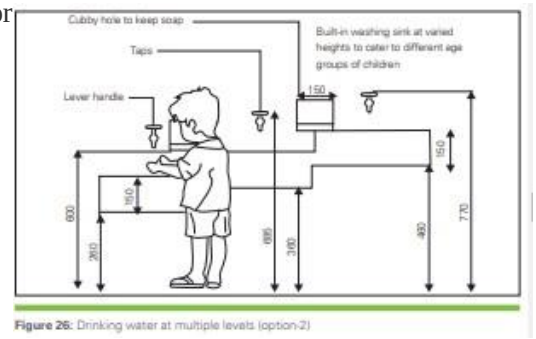
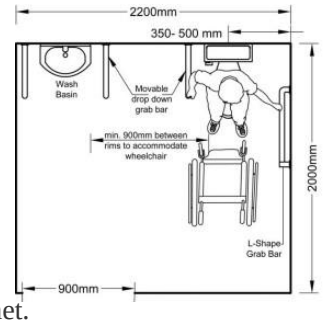
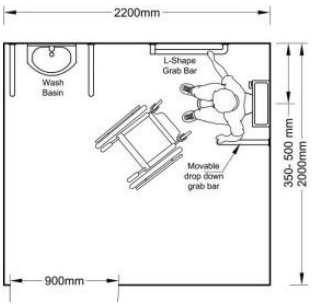
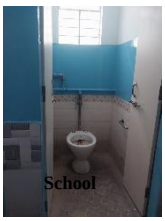


Figure 26: Drinking water at multiple levels (option-2)

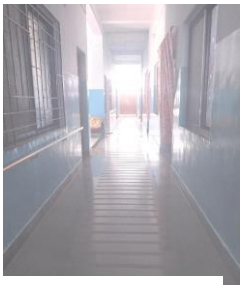
Washrooms: Antiskid tiles, Directional tactile floors, handi sanitary fittings are the important while using to maintain proper hygiene. Students with different needs nolonger necessarily have to be separated from their peers to have those needs met.







- **Psychological planning approach -**
  - Lighting and ventilation – The bright mbience light is more inevitable to add to confidence in students while moving any space.
  - Good acoustics – The sound chaos may create confusion in children, so sound should be clear in a particular space avoiding reverberations and echoes.



School classroom, at Pune, India

  - Pleasant colours – The light fresh secondary or dark primary coulors are to be used as per various activities in any class room, workshops or to demarcate the flow of passages.

Interactive indoors and outdoors vision – secured and ply full joys but secured environment is the need of the children while interacting visually or physically to any space. The atriums, courtyards, as well as the different-sized windows provide various opportunities for those special children to explore the world from different heights, inspiring them enhance the interactions with each other and discover the surrounding world together, which helps developing intelligence better. Architecture is becoming the tool of education.

- **Garden and outdoor spaces, campus movement activities –**

Universal Design | asla.org

No physical differentiation should be there for accessibility in campus or any structure by means of staircase or ramps, but anyone canenjoy or acess any space without hurdles individually without any help of escorts. Usability is always directly proportionate to physibility and flexibility. **Pedestrian and vehicular traffic –** Every campus should be accessible with public private, personal transport till the building access or any garden cum playground spaces.

Conclusion:

Sustainable design goal is key of Architectural space development. Accessibility to all in any space of campus, is

to be designed thoughtfully without any discrimination, of physical ability, age, or gender bias. Equal opportunity fulfils human centric Architectural design approach. Including as many of the elements above as possible in every space of teaching or learning space, is a good design and best practice not just for students with disabilities, but for all students. This is the ultimate goal when designing for disabilities: every element of the design should benefit everyone who visits. The planning requirements in any school space does not reflect the flexible arrangement for study, movement and working area for any multi skill development to fulfil the concept of inclusive policy. School for all "The key challenge is to ensure that the broad vision of 'Education for All' as an inclusive concept is should be reflected in existing school planning. Education for All must take account of the need of the poor and the most disadvantaged, including working children, remote rural dwellers and nomads, and ethnic and linguistic minorities, children, young people and adults affected by conflict, HIV/AIDS, hunger and poor health; and those with special learning needs…" Always at risk for inclusion, must be ensured access to quality education and skill development of disable students of staff in school. Addressing inclusion in a comprehensive manner is a major challenge to the educational community. It calls for a holistic approach which addresses the underlying causes of exclusion. UNESCO's role is to ensure that inclusion is adopted as a cross-cutting issue so that the Education for All goals in fact do cover ALL learners. It is essential to note that inclusive education is not a parallel initiative to EFA but to a principle of the movement.

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