The Concept and Principles of Universal Design

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Annotation: This article will tell about the basic concept of universal design, methods of applying universal design in foreign experiments and situations that can be applied in a comfortable environment of people with disabilities in our country.

Keywords: sensory, mental, concentration, full existence, integration, emotional, intellectual.

Universal design means the design of objects, environments, programs and services designed to make them as usable as possible for all people without the need for adaptation or special design. "This definition takes into account the characteristics of all people, including those with motor, sensory and mental disorders, people of different ages, height, weight, with body structure features, including, for example, people loaded with shopping, women in heels, people with various social deviations in behavior, with different levels of concentration attention, different mobility, - Natalia Lazovskaya notes. - Opponents of universal design say that this is a utopian theory — it is impossible to meet the requirements of all people at once and everywhere. Yes, of course, there are people with various rare diseases, with a very non-standard body structure, they need special conditions, special requirements. And this is also noted in the Convention on the Rights of Persons with Disabilities — the concept of "reasonable accommodation", we are talking about making the necessary adjustments and modifications in each specific case. Moreover, it is noted that this should not be expensive, should not be a heavy financial burden for service providers. And if accessibility must be ensured immediately and everywhere, then reasonable adaptation comes at the moment of need." The concept of a barrier-free environment appeared in the mid-50s of the last century in the USA and Western Europe as a response to the demands of various movements to protect the rights of people with disabilities. At the same time, the first standards for residential buildings appeared, which later spread to other types of buildings and open urban spaces. In the 90s, the concept of universal design was created at the University of North Carolina in the USA. The universal design "does not exclude assistive devices for specific categories of disabled people, where necessary." Due to the modern level of development of medicine, in the conditions of aging of the population, as well as the increase in the quality of care for people with severe birth defects and acquired injuries, in many countries there is an increase in people's life expectancy. There are new opportunities for active participation of people with different nosologies in the life of society. By the end of 2021, about 740,000 disabled people (395.0 thousand women and 345.0 thousand men) in Uzbekistan will receive pensions and social benefits, including 111.3 thousand children under 16 years of age, of which 48.8 thousand girls and 62.5 thousand boys. About 45 thousand people with disabilities are officially registered in the city of Tashkent itself, unofficially 70 thousand people with disabilities. Comfortable living environment-converted to meet the needs of the population with disabilities and serves as an environment that allows people with disabilities to lead an independent lifestyle. An unobstructed environment includes elements of the environment that ensure free movement and use by people with various types (physical, emotional or intellectual) disabilities. Working in such conditions makes it possible for people with special health-improving skills to lead completely independent life. Currently, there are many barriers for people with disabilities in cities, on streets, avenues, in residential buildings and community centers. Free movement in a wheelchair on the street is hampered by various obstacles, steps, height differences and many others. For most people, even a low border of an inconspicuous path can become a serious obstacle to movement in a wheelchair. People with disabilities, according to general opinion, citizens with disabilities-categories of citizens with disabilities are characterized by various types of physical and

other restrictions. Naturally, for them, an unobstructed environment must meet the specific needs of their lives. This requirement also applies to other categories of citizens who do not differ in one way or another from physical restrictions, for example: persons over 60 years old may also become temporarily incapacitated for one reason or another. Even in these cases, we can say that movement consists of restrictions, and that, although it is temporary, for this category of people, a favorable environment should be excluded from any obstacles. That is why Universal Design (or "design for everyone") has been recognized worldwide as improved, and is becoming an integral part of the design and creation of the environment, goods, technologies and services. Unlike the "barrier-free design", it benefits not only people with disabilities, but also provides the convenience of movement of people with strollers, luggage, those who have limitations in the perception of information and many others. The "Concept of universal design" covers many areas, including:

✓ general principles of such design;

✓ current trends in the development of its application practices, design building regulations, standards and rules, as well as norms of human activity;

✓ theory of human development and aging;

✓ Human rights issues, guidelines and laws, assistive technologies, design theory, anthropometry, ergonomics, construction of buildings and vehicles, lighting and sound design. The basic principles of universal design were formulated in the 1990s at the University of North Carolina (USA) and presented in the following composition: Equality in use. The design should be designed for use by people with different physical abilities. It allows:

✓ ensure equal conditions of use of the product for all consumers, whenever possible, if it is impossible to create an equivalent;

✓ avoid highlighting any user group or labeling;

✓ ensure privacy, security and reliability for all; It provides eight conditions that a universal design must satisfy:

1. The parameters of the human body are taken into account in a wide range of sizes and abilities. Conventional design takes into account only the average person, while universal recognizes that humanity has a wide range of characteristics of people and their characteristics, as a result of which there is a need for design solutions suitable for each person.

2. Comfort is maintained within the desired limits of the functions of the human body and its perception of the environment. Objects, services and environmental parameters should not lead to excessive physical and psychological loads of users, affecting the deterioration of their well-being or health status. The use of such facilities and services is convenient for all groups of the population for an acceptable amount of time.

3. Awareness that information important for use is perceived easily. All users should be able to easily navigate in a given space.

4. Understanding that the methods of maintenance and use of objects are intuitively clear and unambiguous. This condition is a development of the previous one. Clarity means that objects and services do not require significant time to study them, but can be used immediately when visiting an object or receiving a service without any difficulties. Unambiguity implies that all people perceive the information provided to them in the same way. The main role in the implementation of this condition is given to effective and accessible information support. In those places where it is possible to dispense with textual names or explanations, priority is given to the use of pictograms that are equally understandable to each person.

5. A healthy lifestyle promotes human health, prevention of diseases and protection from dangers. There should be no risk to people's lives and health. It is necessary to minimize people's problems from certain diseases or allergies, as well as create opportunities for a reasonable increase in their physical activity.

6. Social integration of people with decent and respectful attitude to all groups of the population. Conditions should be created that promote the involvement of people of all population groups in the life of society, as well as the elimination of the causes and conditions of discrimination against any person on any basis, including disability. The cost of services for the disabled should not differ from the cost for other groups of the population.

7. Individualization, including the possibility of choosing and expressing individual preferences. Each person has the right to make his own choice of the object of visiting or receiving the service, as well as the place, time and method of using them. Involving people in solving public problems, creating alternative ways of obtaining services, developing cloud technologies in the field of sociological research, creating mechanisms for public hearings at the stages of making important decisions — all this should be accessible to everyone, and his opinion should be heard.

8. Cultural acceptability of respect and strengthening of cultural values, social and environmental context of the design project. The diversity of users, their mentality, faith and cultural values must be respected. No one should feel marginalized; everyone should have the opportunity to use facilities and services in which elements of the cultural, social environment and principles of sustainable development can be implemented. Thus, the universal design should take into account the existing state and possibilities of the local conditions in which the project is planned to be implemented. In addition to these conditions, the financial component of the project and possible benefits should be taken into account, in which some improvements may bring disproportionate benefits not only to disabled people, but also to other groups of the population, including in terms of improving the quality of life.

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