

Application of Universal Design Principles in Public Spaces for Persons with Disabilities

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Abstract: People with disabilities also need ease of accessibility anywhere that allows them to do all the activities without any interruption of access in order to realize the similarity of opportunity in all aspects of life and livelihood that will aim to realize the independence of those who have obstacles, both physical, intellectual and other. Ease of access to public space is one of the rights to which are owned by them, therefore we need to pay attention to universal design principles so that they also get the right and the opportunity to enjoy the facilities provided by the government. In this research, using library research (library research). The study of literature is a study by using the method of data collection library, or in other words a research object of research is sourced from a variety of literature such as books, encyclopedias, journals and scientific articles. As a result, the application of universal design principles in public spaces for persons with disabilities is still lacking and needs attention. Public space should be a comfortable place for people with disabilities to do activities like the general public.

Keywords: Universal Design; Public space; Disability

INTRODUCTION

As human beings we all want to live life and activities day-to-day easily and smoothly. The physical limitations of a person often make the daily activities could not take place normally and smoothly. Accessibility is the ease that is provided for people with disabilities in order to realize the kesaman opportunity in all aspects of life and livelihood (Kustawan, 2014; Sunandar, et al., 2022). But they all have to give up the only activity in the home, not going in public like any other because of the circumstances around them that just a little bit provides accessibility and facilities in accordance with their specific needs (Radjawali, 2014). A public space or open space that can be accessed by the public without cost (Radjawali, 2014). Accessibility disability which the government promised in the UU No. 4 th 1997 in practice just yet easy to access their movement (Sunandar, et al., 2022). Some public facilities, which are built by considering the disability even on its implementation is still difficult for them. Green open space was even still have not been friendly to the existence of the disability. Disability is not a disability since birth but also the victim of a natural disaster or a war to get disability in the course of his life and the people with the disease who have impaired to perform the activity should either impaired physical and mental. As a contribution to facilitate children with physical disabilities to have the opportunity in terms of education, it is necessary to the planning and design.

Accessibility equivalent for all people plays an important role in achieving the city that is inclusive (Rizkiya, Yusuf, & Caisarina, 2021). Universal design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of age, size, ability, or handicap (Najabah & Arsandrie, 2021). Universal design is a product design that can create a conducive environment for any user either a normal

user or users with disabilities to be able to be used together without any discrimination to the user (Dewi, Wahyuwibowo, & Farkhan, 2017) Universal design is filosofi in designing a product and the environment that seaksesibel for all people without the need for adaptation that great or special design (Harahap, Santosa, Wahjudi, & Martokusumo, 2019) In addition to providing ease of access for people with disabilities, the Concept of universal design refers to the ideas which produce a design of buildings, products or environments that can be accessed by all people from different circles, with the ability and different character (Indriastjario, Naima, & Wijayanti, 2018). Therefore, this study is expected to answer the question of how the application of the principle of universal design in public to persons with disabilities.

METHOD

This research is library research (library research). Library research (library research) is a research by using data collection methods library, or in other words a research object of research is sourced from a variety of literature such as books, encyclopedias, journals and scientific articles (Syaodih, 2009). The study of literature in the form of collection activities and the selection of information and data concerning the principles of universal design data collection of literature, articles in the review is the article about the application of universal design in various public spaces. The focus of the research literature is to analyze and answer the formulation of the research problem by finding various information about the theories, laws, and principles, as well as the idea that subsequently processed as research data. This is a descriptive study, which is a description in the form of an explanation of the understanding are packed regularly so that readers can better understand (Afikah & Iryani, 2020).

Secondary Data is the data used in this study, the data obtained from the results of research conducted by other researchers before, not from direct observation of the researcher, Sources of data obtained from books, scientific reports in the form of an article or journal. Methods of data collection in this research is the method of documentation, by means of search data from a source that has a relationship with the formulation of the research problem. The Data can be in the form of writing and images have been obtained from a variety of sources. Methods of data analysis in this study using the technique of content analysis (content analysis). After all the research data obtained, the authors analyze the existing data to get the conclusions of the study are true and correct (Afifudin, 2021).

RESULT AND DISCUSSION

Result(s)

The main principles of universal design (Masruroh, Mauliani, & Anissa, 2015): Can be used by any person (Equitable Use), the design is useful and marketable to people with diverse abilities. Flexibility in the Use of (Flexibility in Use), design to accommodate all type of users and the range of capabilities of the individual. Simple design and Easy to Use (Simple and Intuitive Use), the use of the design easy to understand, in terms of the experience and abilities of the user. Adequate information (Perceptible Information), product design include supporting information that is important to the user where the information provided is adjusted with the ability of the user. Fault tolerance (Tolerance for Error), minimizes hazards and the adverse consequences of willful or intentional acts. Physical effort Low (Low Physical Effort), design can be used efficiently and comfortably and with minimization of the risk of accidents. Size and Space for Approach and Use (Size and Space for Approach and Use), the Use of the size of the space in the design by doing approach through posture, size and movement of the user.

Research conducted by (Masruroh et al., 2015) in the application of the principles of universal design for access into the park menteng. Visitors will enter the garden this could be through the 3 sides of the garden that is open is through the side of the road Sidoarjo, the side of the Road, Prof Moh. Yamin, the side of the Road H.O.S. Lane guide is the accessibility needs

of the most basic not provided by the architects landscape design parks and the manager is also the owner of the garden in the garden of tribeca and the government through the department of parks as a manager and owner of the park menteng, taman ayodia. Quadriplegic wheelchair users is also disabilities often have difficulty using the facilities ramp that sometimes the slope is very oblique. The existence of vegetation in all the garden does not interfere with motion disabilities. Visitors disabilities difficulties when the activity in the parking area because the space disabilities is limited. Layout of the drainage in the garden is not destructive activities of visitors disabilities In all of the parks have a form of images and writings that quite easily utilized visitors disability unless the disability visually impaired.

In line with previous research, which has been done by (Supar, 2019) where The Siring Zero Kilometers is the open space of the linear along Jalan Jendral Sudirman. In the application of the principle of universal design in this area consists of pedestrian paths, some point pier, skateboard facilities simple and diverse vegetation. The parking

Area is directly in contact with the public roads, so that the harm of both. The absence of a ram from the parking area two and four-wheeled toward the sidewalk complicate the access of users with physical limitations so it will be difficult to use. The absence of a platform that can adjust the height to the water add to the difficulty of the area is accessed through the labor section of the pier there is a barrier/fence anything that can cause potential accidents.

Discussion(s)

In his research (Dewi et al., 2017) also get interesting results on the application of universal design principles on the integrated inclusion school plan is the application of universal design principles on the integrated inclusion school building applied to the view of the building obtained as well as walls with contrasting color paint used as markers for users and make it easier for children with low vision as well as tunanetra to recognize the functions and limitations of each building. Circulation, universal design application on building circulation applied to horizontal and vertical circulation. Vertical circulation implements a ramp equipped with guiding blocks and handrail to provide convenience, comfort and security for users with the height of the acre.. Application of the Principle of Universal Design At the School Inclusion is Integrated In Surakarta already be said to have apply it well.

Further research conducted by (Ayu & Sakya, 2021) said that the results of the study 5 segment and the exterior space at the hospital RSUD Dr Iskak Tulungagung Regency, amounted to 22 elements of accessibility in RSUD Dr. Isaac shows some of the problems of physical accessibility which inhibits the activity of treatment of patients in the hospital. The cause is due to the hospital not meet the category of accessibility standards as a whole, namely to meet the principle of ease, usability, and safety for patients with physical limitations. Elements of the accessibility of the building that the door of the lobby drop zone-lobby drop out, the counter of the administration, corridor, toilet and waiting room. On the object of research RSUD Dr. Iskak the results show that the percentage of elements that are in the category of accessibility standards there are 27%. While the other results are the elements that the accessibility of some standards there is 50%, the elements that are less accessible there are 23%, and there are elements that are not accessible at all. So in the end, the results of the analysis have shown RSUD Dr. Iskak not apply the seven principles of universal design as a whole.

Other researchers examined the accessibility in public is (Najabah & Arsandrie, 2021) based on the analysis, in the garden of smart jebres still not meet the principles of universal design, especially on the principle of equitable use or equality in the use, where at the park smart jebres not provide access to facilitate persons with disabilities visual impairment such as by providing a guiding block. In addition, both garden is not yet meet the principles of universal design, namely simple and intuitive use and perceptible information one example is the use of signs or signage..

In line with other research (Sanjaya, Harahap, & Gambiro, 2019) on the study of the application of universal design Masjid Manarul Charity Kampus Meruya At the University of Mercu Buana Jakarta Barat having analyzed and evaluated primarily on the pedestrian path as the entrance gate of the mosque should be given a special line of the wheel chair and guiding blocks for persons with visual impairment, the stairs of the mosque in this area in the add a ramp for easy access for wheelchairs and trolleys to carry the goods. Then at the end of the ladder is made shoe rack so as not to interfere with the access stairs of shoes or sandals that are strewn, the road to the place of ablution there are wheelchair ramps, therefore created the path of the wheelchair with the long axis of the wheel chair is 80cm. In the toilet area which is not the accessibility of a given design solution in the form of toilet access-sized 2x2 m and there is a handrail on the inside to facilitate access for people who have physical limitations or place of wudhu'.

On the research Study of the application of the principle of universal design in the geological museum of bandung by (Indriastjario et al., 2018) from a total of 10 sub- variables, none of which met their accessibility on the area of the park. Parking at the museum is still not provide a drop-off zone and parking for disabled people. These variables are as follows: a total of 62.5% of sub-variable ramp is in conformity with the standard of facilities and accessibility. Sub-variables that still need to be reviewed namely the uniformity of the dimensions of the risers and the addition of the length and shape of parts of the ends of the handrail. Special for the variable elevator, the percentage of fulfillment facilities and accessibility can not be concluded because there are sub-variables for which data are not available . Sub-variables that do not meet the standard is a system of embossed print symbol smoking on the toilet door, the magnitude of the space, the width of the toilet door, the height of the tissue paper, the availability of free space below the sink, and the distance between the sink. The highest results contained in the variable piece of furniture with a number of sub-variables which are met by 85.7%. sub-variables that are not met is the height of the counter information and the ticket is still not provide the counter with a high accessible.

CONCLUSION

From the results of the literature review conducted, it can be concluded that the application of universal design principles to persons with disabilities in public spaces has not been carried out and needs attention. This allows everyone to benefit from the public space provided by the government and public institutions. The government must also have the right to difficulty in planning or designing public spaces. This makes everyone feel like a great counterweight to getting their civil rights.

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