

# The Arrangement of Universal Design Implementation in The Indonesia Disability Regulation and International Documents

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DOI: 10.29322/IJSRP.8.8.2018.p8034

<http://dx.doi.org/10.29322/IJSRP.8.8.2018.p8034>

**Abstract-** The concept of universal design has been known in the engineering environment, especially Department of Architecture. It is an fundamental element to provide an accessible design for all including persons with disabilities. Therefore, necessary for us to review it in both of the national legislation, and international documents.

Through the literature study, it was found that the concept of Universal Design has not been regulated in Indonesian legislation yet, although international documents such as the Convention on the rights of Persons with Disabilities and several other countries have listed it. Finally, this paper recommends that the government should add the concept in disability regulation under the Indonesian disability legislation in order to provide guidance on accessibility for persons with disabilities.

**Index Terms-** Accessibility, disability legislation, Persons with Disabilities, and Universal Design.

## I. INTRODUCTION

Since 2015, the author was invited by the Department of Architecture, Faculty of Engineering, Diponegoro University as visiting lecturer concerning Universal Design Subject. The background of these activities were the awareness of the lecturers within the Faculty of Engineering, especially the Department of Architecture that so far they do not understand yet regarding the persons with disabilities needs as users of their designing. Consequently, their estimation of persons with disabilities needs are very different with the reality.

As a disability organizer and activist, the writer was expected to inform regarding the Indonesian marginal citizen and their needs to access to the building and its environment. It is very valuable in order to offer the accessible design of buildings and environments for various backgrounds.

In order to realize the accessibility, it is necessary to provide designing in the form of building design and environment based on the concept of universal design. Nowadays, the concept was reviewed by engineering scholars especially the Department of Architecture, Faculty of Engineering, Diponegoro University from a technical point of view. Certainly, it is made accessible design for various society. This is reinforced after searching in e-journal.undip.ac.id. There were two journals, that both of them review the universal design based on technical point of view. The two journals are, "*Penerapan Penyelesaian Universal Design Pada Renovasi Bangunan Gedung Spesifik (Ruang Terapi Ablasi) Studi Kasus RSUD Dr. Kariadi Semarang*" by Sri Hartuti Wahyuningrum and Bharoto and "A Review of Universal Design on Eldery House Design Development -Case South Korea" by Bangun Harsritanto.

Nowadays, universal design to animating engineering knowledge especially design, but also education. One of article on universal design in the education field, was written by Kenneth Lloyd Reimer, Ph.D., a lecturer Faculty of Education, University of Winnipeg, Canada. In one of his books which was published on May 31, 2017, entitled *Universal Design and the Novel Study*, says, "Although Universal Design (UD) was initially an architectural construct, the term is now used in a wide range of disciplines including education. Proponents believe that teachers trained in UD will be better equipped to meet the needs of the broadest range of learners through flexible curricular materials and activities".

Thus there has been no studying universal design in terms of government regulations of it. Because the author is a disability activist and has education background on Law, therefore interest in to review the concept from a legal point of view, especially its regulation on disability Indonesia regulation and international documents

## II. RESEARCH ELABORATION

This article was written through literacy study, because researcher read several literatures to find the essential legislation for universal design to be added in disability regulation

## III. RESULT

### A. Definition of Persons with Disabilities and Universal Design

Based on the Indonesian Dictionary on line, the notion of the word Person is "a person who bears (suffers) something". While the word Disability is, first, "circumstances (such as illness or injury) that damage or limit one's mental and physical ability" and secondly, "circumstances are incapable of doing things in the usual way". However, there is no meaning of the combined word of persons with disabilities in the Dictionary.

According to Dr. Didi Tarsidi, the term "Disability" is a substitute for the term handicap. In his own blog, he said that, on 29 March to 1 April 2010 the Ministry of Social Affairs held a meeting for composing the ratification of the Convention on Rights of Persons with Disabilities. The meeting was attended by 30 participants representing various agencies / organizations including the Ministry of Foreign Affairs, the Ministry of Justice and Human Rights, the Ministry of Women Empowerment and Child Protection, the Ministry of Manpower, the Ministry of Social Affairs, the National Commission of Human Rights, Disability Organizations, and Disability Awareness NGOs. The participants agreed to change the term of Persons with handicap to Persons with Disabilities. Their reasons were , first, term "persons with handicap" tentatively has a negative meaning, so it has a very wide impact, especially in public policy substance which marginalize them; secondly, the term Persons with handicap in Indonesian perspective has negative meaning and is not in line with the main principles of human rights as well as contrary to the noble values of our nation that uphold the dignity of human beings; third, the term persons with disabilities has a broader meaning and contains inclusive values in accordance with the spirit of legal reform in Indonesia, and in line with the substance of the Convention on the Rights of Persons with Disabilities (CRPD). Although it has been agreed to use the term persons with disabilities, in Indonesia there are other terms. These terms include persons with special needs, difable (different ability), and disabled persons. Based on the reasons for compliance with applicable laws and regulations, the authors will use the term Persons with Disabilities, as contained in Law No. 8 of 2016 concerning Persons with disabilities.

Article 2 United Nations Convention on the Rights of Persons with Disabilities states that persons with disabilities is "Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others". Next, it was adopted by Article 1.1 Law No. 8 of 2016 on Persons with Disabilities. It states in Indonesian, that "*Penyandang Disabilitas adalah setiap orang yang menyandang keterbatasan fisik, intelektual, mental, dan/atau sensorik dalam jangka waktu lama yang dalam berinteraksi dengan lingkungan dapat mengalami hambatan dan kesulitan untuk berpartisipasi secara penuh dan efektif dengan warga negara lainnya berdasarkan kesamaan hak*". Or in English is "persons with disabilities is "Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others". Based on the definition, we can form it into several elements. These elements are: first, impairments on mental, intellectual or sensory; second, in interaction with various barriers may hinder their full and effective participation in society; finally, on an equal basis.

Constraints or obstacles when accessing the environment are further reduced by means of designs that are accessible to persons with disabilities or not. The concept of such design is known as Universal Design, for example, the building provides a ramp ramp besides the ladder so that wheelchair users can access, fire alarm sign has warning sign besides noise also lights and vibration so that the disabled can understand the existence of danger, and mobile phones and computers provide a visual to speech converter application so that people with disabilities can also use it.

According to the dictionary, the meaning of universal design is "A style of architecture and design whose object is to make buildings and facilities easy to access and use by all people, including the young, the old, and the disabled". On 1997, several architectures from North Carolina State University, USA define Universal Design as "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". Then the United Nations Convention on, the Rights of Persons with Disability (UNCRPD), as international convention for persons with disabilities, in the Article 2 defines Universal Design as "Universal Design" means the design of products, environments, programs and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design".

Both of the definition North Carolina State University and United nations, are similar, they declare Universal Design as a design that everyone can be access without specialized design. The difference is the definition from United Nations more widely than other,

because including the design of products, environments, programs and services, whereas, definition North Carolina State University just covered the design of products and environments.

Based on the definition above, we know that, the universal design does not only for disable persons. Instead, its result will more useful, because its gives positive impact to disabilities and non-disabilities. It is similar with the statement of Joan M. McGuire, Sally S. Scott, and Stan F. Shaw, that, "A common observation about universally designed products and environments is that they result in a more functional environment or product for everyone".

In order to standardize the designs based on universal design, several scientists from North Carolina State University USA who consist of Bettye Rose Connell, Mike Jones, Ron Mace, Jim Mueller, Abir Mullick, Elaine Ostroff, Jon Sanford, Ed Steinfeld, Molly Story, and Gregg Vanderheiden formulated the general principals of Universal Design. The principals consist of 7 principals as indicator for design products have comply with universal design or not. Previously, universal design was limited for products and environment, but nowadays it can be implemented on programs and services.

First, "Equitable Use", that the design results should be useful and can be utilized by people with different background abilities. Second, "Flexibility in Use", that the results of the design can be exploited by various methods or ways. Third, "Simple and Intuitive Use", that the design is easy to understand even by the educated and experienced minimal. Fourth, "Perceptible Information", that those who have weak sensory abilities can capture and understand the information conveyed through the product of the design. Fifth, "Tolerance for Error", that the resulting design is able to minimize the damage and losses that may arise as a result of undesirable actions. Sixth, "Low Physical Effort", that for users of the design does not need to use excessive effort in utilizing it. Seventh, "Size and Space for Approach and Use", that user with various postures can use the results of the design.

Beside Universal Design, "inclusive design" is used by researchers from Cristian Petra University, Surabaya. They consisted of Joyce Marcella Laurens and Gunawan Tanuwidjaja. "inclusive design is defined as "the design of products mainstream and/or services which can be accessed by as much as possible, without distinguish based on age and ability, naturally, and without special design". The other terms that similar with universal design are non handicapping environment, design for all, accessible design, respect on human design, and design for diversity. Based on the terminology used by the United nations convention on the rights of Persons with Disabilities, hence the author prefer to use universal design.

#### B. The Arrangement of Universal Design on National Disability Law

If accessibility is manifested properly, then the potential of people with disabilities will be well channeled. On the other hand, the lack of accessibility will affect people with disability to the community burden. This is in accordance with the words of Monthian Bunthan, a member of the Committee on the Rights of Persons with Disabilities at the meeting of The 3rd AICHR (ASEAN Intergovernmental Commission on Human Rights) June 19-21, 2017 in Thailand. On the occasion, he underlined, "The participants highlighted," The participants were notified of the UNCRPD. However, social stigma surrounding persons with disabilities adds barriers to the realization of their right. Moreover, the lack of access to infrastructure, information and transportation hinders persons with disabilities from being contributing members of the economy through entrepreneurship".

The concept of universal design is a tool that means a lot to realize accessibility. The reason, the condition that has hampered the role of people with disabilities in social life, will be accessible through the concept of universal design thinking. This is because the entire design of products, environments, programs and services will be made accessible to everyone including disability. An entity called DO-IT, University of Washington and aims to empower disability to convey that, "When designers apply universal design principles, their products and services meet the needs of potential users with a variety of characteristics."

Because of the tremendous benefits for people with disabilities, it is natural that designers of products, environments, programs and services are encouraged to produce designs that meet Universal Design concepts that can be used by everyone. Such encouragement can be various things, including the existence of policies and regulations that guide the design criteria that fit the concept.

However, the laws and regulations on disability in Indonesia do not arrange regarding universal design yet. Law No. 8 of 2016 on Persons with Disabilities does not cover it. As for things that have been arranged yet. The law just provides accessibility and reasonable accommodation. Article 18 of Law Number 8 of 2016 provides guarantees on the fulfillment of accessibility rights for persons with disabilities that include the right to accessibility in order to utilize public facilities and the right to obtain adequate accommodation as a form of accessibility for individuals. According to the law, the definition of reasonable Accommodation in Article 1.9, is "appropriate modification and adjustment and is necessary to ensure the enjoyment or implementation of all human rights and fundamental freedoms for Persons with Disabilities based on equality" and Accessibility in Article 1.8 is "the ease provided to Persons with Disabilities in order to realize the Equal Opportunity".

### C. Arrangement the Concept of Universal Design in International Documents

Then, we should refer to The United Nations Convention on the Rights of Persons with Disability (CRPD) as reference for globe regulations relating to disability.

Article 2 CRPD declares that, reasonable accommodation is “necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms”. On the other side, Universal Design is “the design of products, environments, programs and services to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design”. Then, accessibility is arrange in Article 9.1 that mandates “to enable persons with disabilities to live independently and participate fully in all aspects of life, States Parties shall take appropriate measures to ensure to persons with disabilities access, on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public, both in urban and in rural areas “.

The Convention has been ratified by the Government of the Republic of Indonesia through Act No. 19 of 2011. Since the ratification, our country have been definitively bound to the United Nations Convention on the Rights of Persons with Disabilities. However, when Law No. 19 of 2011 was implemented through Law No. 8 of 2016 on Persons with Disabilities, the arrangement of Universal Design is not included, although Universal Design is an essential element of accessibility.

The arrangement of universal design is the step of positioning the "law as a tool or means of conducting social engineering (as a tool of social engineering). Unlucky, the Indonesian regulations that arrange the concept of universal design is the Minister of Public Works and People's Housing No. 14 / PRT / M / 2017 on Building Ease Requirements. Thus, the universal design is limited just for building and environment, whereas Convention on the Rights of Persons with disabilities mandats to obtain accessibility for disabilities on products, environment, services, and programs.

### IV. CONCLUSION

Based on the above description, it was revealed that the universal design has not been included in the regulations of Indonesian disability legislation. Law No. 8 of 2016 on persons with disabilities as currently law to regulate the protection and fulfillment of the rights of persons with disabilities has not included the subject. This condition has the potential border to provide accessibility as one of the rights of persons with disabilities.

Finally, author suggest to add the concept of universal design into regulation under the law of disability as guiding to provide accessibility for persons with disability.

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