

Design Of Sensory Park As Educational Park For Children With Special Needs At Autism Service Center, Denpasar City

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Abstrak / Abstract

Autism is defined as a special behavior that affects a person in communicating or interacting with other people or certain objects. There are varying degrees of autism, but some of the common behaviors associated with this disability include poor motor skills, speech delays, difficulties with skills such as reasoning, and very narrow interests. The Growth and Development Group for Children with Special Needs is an educational service for children with special needs in Denpasar City. Currently, almost all facilities are available in PLA, but outdoor facilities in the form of sensory gardens are not yet available. Therefore, partners want to provide a sensory garden to meet the educational needs of children with special needs and until now it is still difficult to find expertise to design this special garden. There are several problems that are summarized related to the procurement of this sensory park, namely the limitations of available land, the ideal sensory garden design and calculation of the estimated cost of sensory garden realization. By using the design method and approach to the needs of children with special needs, psychological aspects and sensory sensitivity are the main things in the preparation of this sensory garden design. Seeing these obstacles, it is necessary to design an ideal sensory garden, because PLA wants to realize this park and get funding from the government for the sustainability and educational needs of students with special needs.

Keywords: *Sensory Park, Children with Special Needs, Autism*

1. Introduction

The Growth and Development Group for Children with Special Needs is an educational service for children with special needs which is chaired by I Nyoman Handika, S.Si as the head of the PLA (Autism Service Center) Denpasar City. Autism is defined as a special behavior that affects a person in communicating or interacting with other people or certain objects. There are varying degrees of autism, but some of the common behaviors associated with this disability include poor motor skills, speech delays, difficulties with skills such as reasoning, and very narrow interests. The center for education services for children with autism is located in Denpasar City. PLA was founded in 2011 and is still very active to this day to provide education and learning for children with special needs. There are 7 (seven) services provided including Behavioral Therapy, Occupational Therapy, Speech Therapy, Physiotherapy, Self Development Classes, Self Development Classes, and Free Health Checkups, as

well as Health Checkups provided by Pediatricians and Psychiatrists. The following is an overview of the PLA facility in Denpasar City.

The growth and development group for children with special needs includes assessment services to provide a detailed description of the characteristics of the type of autism the child has, integrated intervention or therapy services consisting of behavioral therapy, physiotherapy, speech therapy, occupational therapy, transitional education to prepare children to enter appropriate education. according to both formal, non-formal, informal, special classes, or other special education as well as general services to the entire community such as providing information about autism, research and development services, training and consulting services about autism and other general services related to autism.

Of the 14 (fourteen) facilities, the presence of an outdoor facility in the form of a Sensory Park has not been facilitated by PLA. The importance of the sensory garden facility in this facility is to provide hands-on experience for children playing outdoors in training their sensory and sensory sensitivity. This park will be specially designed, of course, from the point of view of the needs of children with special needs with educational methods in the games provided in the park. Sensory Garden Needs with the aim of creating a Setting that provides a comfortable distance. In communication, in considering the use of space as a type of non-verbal communication and informing people of appropriate interpersonal distance in different cultures and situations, where the need for interpersonal space may differ between children with special needs such as children with autism and children in general.

2. Method

The form of implementation of the Community Partnership Program activities in the form of Sensory Park Design at the Autism Service Center, Denpasar City consists of several stages, namely:

A. Initial observation and survey

Initial observation activities were carried out by direct observation to the field, looking at the existing conditions of land available in the PLA and doing sketches and taking photos of the existing land and surrounding facilities around the PLA land. Furthermore, the survey technique was carried out through in-depth interviews with the Head of the Autism Service Center to find out the design needs in the context of providing educational facilities for students with special needs.

B. Measurement and Research related to Design Approaches for Children with Special Needs

In the follow-up observation and survey stage, members of the service team who have expertise in civil engineering, lead measurements in the field using a Total Station tool to obtain an inventory of the shape and size of the existing land. Another observation is the observation of the need for space for the psychological suitability of children with special needs. This observation is adjusted to the type of character of the students at the Autism Service Center.

C. Data analysis

The measurement data are then analyzed to be prepared as a basic reference image in making the concept of a sensory garden. While the results of the interview data are used as considerations in the design process according to the learning needs of children with special needs.

D. Design alternative planning

After the data analysis was carried out, it was continued by making a design scheme in the form of a structuring design scheme related to the realm of architecture, as well as by adjusting the design from a psychological scientific point of view in order to provide a more ideal approach to the design of the Sensory Park.

E. FGD (Focus Group Discussion)

After the arrangement and management design scheme is in place, the results will be presented to partners in FGD activities. The presentation of potential data and problems to the results of alternative designs is explained in this activity. Of course, partners will be invited to discuss so that criticism and

input from partners will also be accommodated in this activity. The results of the FGDs will be re-evaluated and revised if necessary. FGD can be done more than 1 time to get the optimal result. This activity also needs to be documented as a process.

F. Socialization of the Implementation of Planning Ideas

After the FGDs get the jointly selected results, it is necessary to hold a socialization related to the design/ideas of the Sensory Park. This activity became a wider and more direct liaison with the community, especially the teaching staff at PLA and parents of students.

G. PKM Activity Report

The results of the final decision in the FGD with partners will be the main material for the PKM activity report, as well as showing the process from each step to the final decision that is jointly selected. lingkungan desa.

3. Result And Discussion

From the existence of these existing conditions, we can conclude the types of facilities contained in the sensory garden area. This inventory aims to determine the layout and number of facilities. The following inventory results are shown in table 1 below.

Table 1. Inventory of Existing Sensory Park Facilities at PLA Denpasar City

Lokasi	Fasilitas Eksisting	Deskripsi
Front Area	Paving	The Sensory Park area in front has not been designed because it is still designated as parking at the Denpasar City PLA.
	Motorcycle Parking Only	
	Park	The garden only functions as an ornamental garden.
	Therapy Facilities	The facilities are right next to the sensory park
	Ayunan	The swing is in good condition, but cannot be used by all students
	Climbing	Climbing is in good condition, but cannot be used by all students
Center Area	Roller	Bad condition
	<i>Urban Farming</i>	No plants
	Taman	Not yet organized, just a conventional garden in general
	Paving	Still good but doesn't reflect the sensory garden
	Grass	Still good but doesn't reflect the sensory garden

From the measurement process carried out, it is continued to the process of analyzing the needs of the sensory garden which is related to the types of sensory disturbances and the standard of sensory garden needs. Sensory Park at the Autism Service Center in Denpasar certainly requires garden facilities to meet the needs of students. The benefits of education obtained through the sensory garden are in the

form of learning, socialization, healing and refreshment. In addition, the Sensory Garden can be associated with therapeutic activities for students to stimulate and stimulate the five senses to be more responsive. The following is a Sensory Garden Landscape Design Concept that will be planned at PLA Denpasar.

Table 2. Kebutuhan Fasilitas Taman Sensori pada Pusat Layanan Autis Denpasar

Parameter	Aspect	Design Criteria
Keamanan dan Keselamatan	Mass Layout	Availability of visual access to outdoor spaces to supervise children A quiet outdoor space that is surrounded but not isolated
	Material	Using material that is not slippery and absorbs water well Choose plants that are harmless or toxic Road network that makes it easier for children to access the park
	Accessibility	Separation between zones containing hyposensitive and hypersensitive children
Therapy	Zone	Separation between zones containing hyposensitive and hypersensitive children Availability of areas with therapeutic activities and rest Provides a calming area and provides protection during a tantrum, Provides an area for sensory interaction and experience
	Material	Provides softscape and hardscape that stimulates hyposensitive children and calms hypersensitive children
	Garden Fiture	Provides games that train motor skills and balance and coordination
		Provides a water feature that provides an opportunity to stimulate hearing and touch and soothes

From the results of the analysis above, the following are the results of the translation of the facility zoning needs to the needs of students in the Denpasar City PLA into the concepts of Sensory Garden.

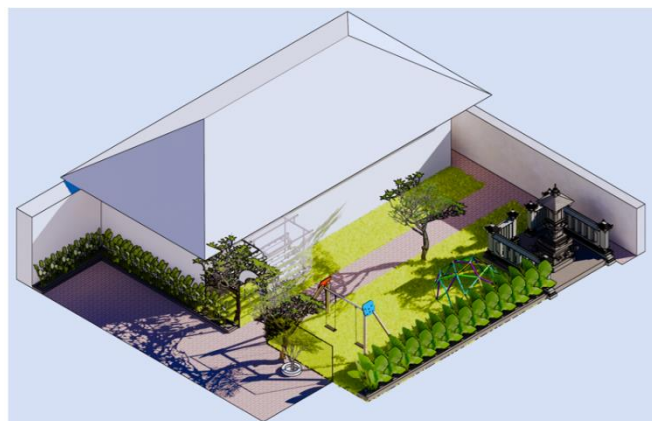


Figure 1. Existing Facilities

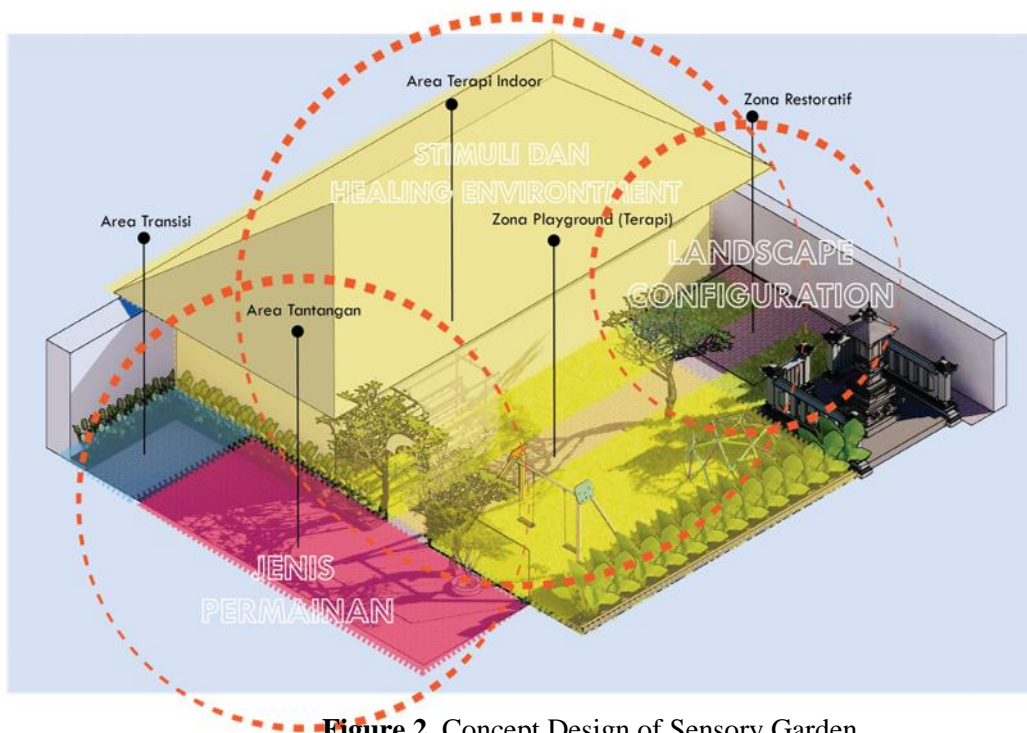


Figure 2. Concept Design of Sensory Garden

The design of the Sensory Park is expected to be able to meet the needs of PLA in Denpasar City, especially for students with special needs. This sensory park is specially designed to facilitate and stimulate the development of children with special needs according to their sensory constraints. In addition to meeting the need for outdoor facilities for children with special needs, this sensory garden can be used as the first pilot project for the design of outdoor spaces with special needs. The hope in the future, especially for the Denpasar City government, is to pay more attention to the accessibility of the existence of outdoor spaces or parks that can be used by all groups. The goal that is expected to be generated from this work is of course to answer the need for outdoor space for educational facilities for students at PLA Denpasar City. It can be stated then that the objectives of the Sensory Garden work are:

1. Meeting the educational needs and stimulation of the development of children with special needs
2. Adding therapeutic facilities with outdoor or natural spaces to help the development of PLA students in Denpasar City.
3. As a grant submission document in the form of 2D and 3D images, regarding the reference for the development of the Denpasar City PLA development.

4. Conclusion

In the community service process in the design of the Sensory Park at the Denpasar City PLA, not too many obstacles occurred. However, there are several things that need to be included in the implementation. Some of these things consist of ; Partners have not explained in detail the need for a sensory garden, so a Facility Function Analysis in a Sensory Park is needed and Pandemic conditions that make it difficult to communicate directly.

From these points, all agreements and implementations have been carried out in coordination with the PLA City of Denpasar. To find a solution to this problem. Based on what has been described in previous chapters, the conclusions that can be drawn include:

1. The initial observation and survey phase, carried out on February 16, 2020, the data obtained in the form of interview data from partners and the results of existing photo documentation.

2. The PKM team discussed the adjustment of needs to the needs of students at the Denpasar City PLA.
3. The need for adjustment of the Sensory Park to the needs of education and existing stimulants. So that in the design later it is necessary to adjust the theory and benchmarking of other sensory garden facilities.

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