Development of Visual Media Products for Children with Special Needs at the Denpasar Autism Center

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Abstrak / *Abstract*

The Special Needs Child Development Group is an educational service center for children with autism located in the PLA (Autism Service Center) Denpasar City. In the learning process, children with autism have special characteristics and characteristics in observing and responding to something and tend to capture information or learn faster by using visualization. One of the interesting ways to improve children's storytelling skills is to provide picture books. Because picture books have a visualization effect that can stimulate the eyes to enjoy the picture and understand the text that explains the picture. There are several important problems regarding visual media which consist of the need for alternative visual media products to train children's sensory which is still limited to seeing sensory stimuli, media that can train other sensory types such as audio, taste, and touch, Adjustment of Visual Media Products to psychological growth and development are needed. autistic children and locality characteristics of the types of visual media objects that are used as teaching materials do not characterize the regional environment in Indonesia because some of the visual media come from abroad. Visual media products for learning media can be in the form of books and types of interactive games with the aim of providing cognitive and motoric impact, with content that will be adapted to the psychological condition of the child, of course, by highlighting elements of local characteristics in the object design to facilitate the learning process for children with autism. In developing visual media products that are intended as learning media for autistic children, the method used is ADDIE (Analysis, Design, Development, Implementation, and Evaluation) which is a learning model based on which each phase of the implementation process produces learning stages designed with specific objectives The sustainability aspect of this PKM program is the development of advanced visual media products and the design of special facilities for autistic children. So that gradually the needs and access to better education can be obtained by all children with special needs on a city and regional scale.

Keywords: *Visual Media, Children with Special Needs.*

1. Introduction

The Special Needs Child Development Group is an educational service center for children with autism located in the PLA (Autism Service Center) Denpasar City. As we know, Autism is a developmental disorder in children characterized by delays in cognitive, behavioral, communication

and social interactions. Autistic children tend to be compulsive (rebellious) and retualistic, which means that autistic children take repeated actions (Winarno, 2013). The Denpasar City PLA was initiated by the Denpasar City Government in 2010 which was later inaugurated by the UNESCO Director and Representative Prof. Dr. Hubert Gijzen, together with Mayor I.B Rai Dharmawijaya Mantra and Head of Coordinator for Social Welfare Activities (K3S) Denpasar City I.A Selly Dharmawijaya Mantra Denpasar City Government continues to do their best to provide services to children with disabilities, especially children with autism. PLA is a service that is directly under the Department of Education, Youth and Sports. PLA Denpasar City as the only Autism Service Center in Bali. From the beginning of its establishment as a Development Center for Children with Special Needs, PLA Denpasar City has been a pioneer and at the same time facilitated the educational needs of children with special needs.

The Growth and Development Group for Children with Special Needs is chaired by I Nyoman Handika, S.Si as the head of the Denpasar City PLA. Currently, there are 18 teachers and therapists with qualifications of educators in Psychology, physiotherapy, speech therapy, Counseling Guidance (BK), business management, economics, occupational therapy, Indonesian literature education, tourism, agriculture, Information Technology (IT). The child served is 1 child. There are 7 (seven) services provided including Behavioral Therapy, Occupational Therapy, Speech Therapy, Physiotherapy, Self Development Class, Self Development Class, and Free Health Checkup, as well as Health Checkup provided by Pediatricians and Psychiatrists from Wangaya General Hospital Denpasar. Sources of funding for the growth and development group for children with special needs come from the Denpasar City Government, APBD, Denpasar City PKK group, parents of children with autism, and the "Fajar Pagi" child care team. In its journey to date, support for the growth and development group for children with special needs in PLA has been supported by the Denpasar City Government, the Denpasar City PKK group, private companies, Sanglah Hospital, the "Fajar Pagi" child care group, and parents of autistic children. Facilities and infrastructure to support educational activities for children with special needs consist of an adequate building, sensory integration room, snoezellen room, health clinic, autistic-friendly room, IT room, play room, self-development room, speech therapy room, occupational therapy room, physiotherapy room, and libraries. 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. Here are some photos of the activities carried out at the PLA.

Since its establishment until now there has been a significant increase in the number of services for children with special needs. The data for people with autism at the Denpasar City Autism Service Center in 2011-2018 has increased. In 2011 it served 42 children with special needs, in 2012 it served 65 children with special needs, in 2013 it served 80 children with special needs, in 2014 it served 89 children with special needs and until January 2016 it had reached 98 children with special needs with 40 children with autism, and in 2018 reached 111 children. The results of these data can be concluded that the number of children with autism has increased every year.

2. Method

The implementation method used for this service proposal is addressed to partners who are not economically/socially productive in this case are autistic children's growth and development group located in PLA Denpasar City. To make visual media products, there are several stages that must be passed so that the product results can be used effectively as learning media. In developing visual media products that are intended as learning media for autistic children, the method used is ADDIE (Analysis, Design, Development, Implementation, and Evaluation) which is a learning model based on which each phase of the implementation process produces learning stages designed with specific goals (Molenda

and Raiser, 1990). The ADDIE method provides specific stages for assessing the learning design process, where in each phase there are revisions for each stage/phase. The results of the evaluation of each stage can bring the development of learning to the previous stage. The end result of one phase is the initial product for the next phase.

A. Analysis Phase

This phase is used to identify needs which includes an analysis of the characteristics of children with special needs. In this phase, it includes observation and data collection regarding the phase of development and growth of autistic children as well as activity patterns to determine what visual media design is appropriate for autistic children's learning media. Especially in considering the cognitive and motor aspects that will be raised. As well as in this phase, an analysis related to the development of children's books will be carried out through a design theory approach in the field of Architecture to find out aspects that can be transformed as learning media.

B. Design Phase

The design phase is a continuation of the analysis phase which is translated into a visual media model which is still an unprinted design result. All aspects of the design, both from design theory which is then translated into visual content of objects that will be used as learning tools that have been adapted to the growth and development needs of children with special needs and in this phase the content consultation process for the field of Psychology is needed to provide a viewpoint on the content. from a psychological aspect. The result of this process is to create a modeling model of visual media content.

C. Development Phase

The development phase is a continuation of the design phase which is translated into a visual media development product. In this phase the modeling of the results of the design phase begins to be produced. The steps taken in this stage include: creating learning objects such as text documents, animations, images, videos and so on; create additional supporting documents.

D. Implementation Phase

The implementation phase is the phase of how the results of this visual media product will be applied. This phase includes how to use visual media, as well as how to practice teaching methods in the teaching and learning process for children with autism. From this phase we can see the effectiveness and relevance of visual media used in the teaching and learning process for children with autism.

E. Evaluation Phase

The last phase is an important phase of the evaluation phase of the ADDIE model is how an instructional designer is able to carry out an overall evaluation of the visual model, from the beginning to the end.

3. Result And Discussion

The design phase is a continuation of the analysis phase which is translated into a visual media model which is still an unprinted design result. All aspects of the design, both from design theory which is then translated into visual content of objects that will be used as learning tools that have been adapted to the growth and development needs of children with special needs and in this phase the content consultation process for the field of Psychology is needed to provide a viewpoint on the content. from a psychological aspect. The result of this process is to create a modeling model of visual media content.

A. Activity Schedule

Consists of a daily activity schedule and a short schedule. The schedule of daily activities is located outside the classroom which serves as a medium for laying out the sequence of activities for a day at school. While the short schedule is located in the classroom which serves to put the sequence of student activities during learning in the class. Here is a visual concept of the schedule.

Figure 1. Activity Schedule Visual Design Concept

Figure 2. Activity Schedule Layout Concept

The following is a material concept and design of visual media to display the schedule of students at PLA Denpasar City. With the combination of the material concepts below, teachers and students don't have to worry about adjusting to schedule changes, they only need to change the card paste on the prepared sheet.
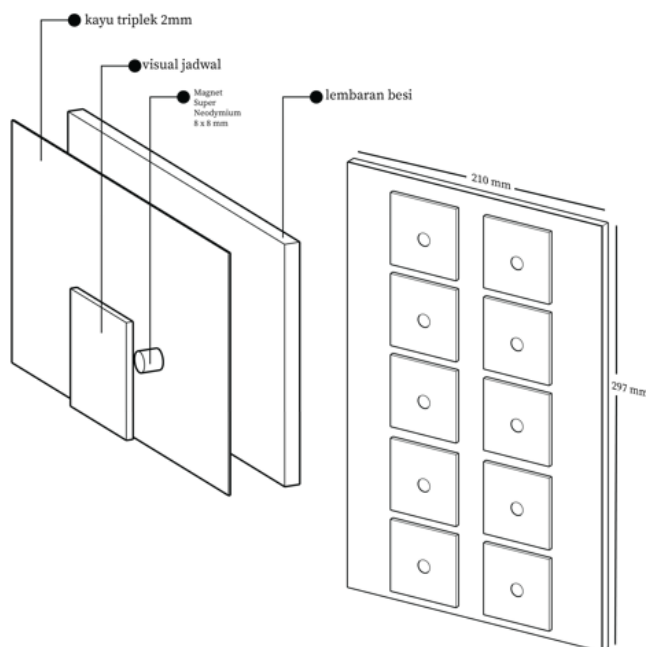
Figure 3. Visual Schedule Sheet Assembly Concept

B. Visual Script

Serves to train students' social skills to make it easier for them to interact with their interlocutors. Motivating them that interacting with other people is not difficult. Because the words are made clear and as short as possible, it can simplify learning efforts. The following is a visual script concept regarding the recognition of various hand movements.

**Figure 4.** Visual Scripts About Various Hand Gestures

C. Rules Reminder

Serves as a medium to show the rules that apply and what consequences are obtained after performing a behavior. These rules include what behavior is allowed and what behavior is not allowed, all of which will have consequences. The following is the concept of a reminder of the regulations that will be applied to the Denpasar City PLA.
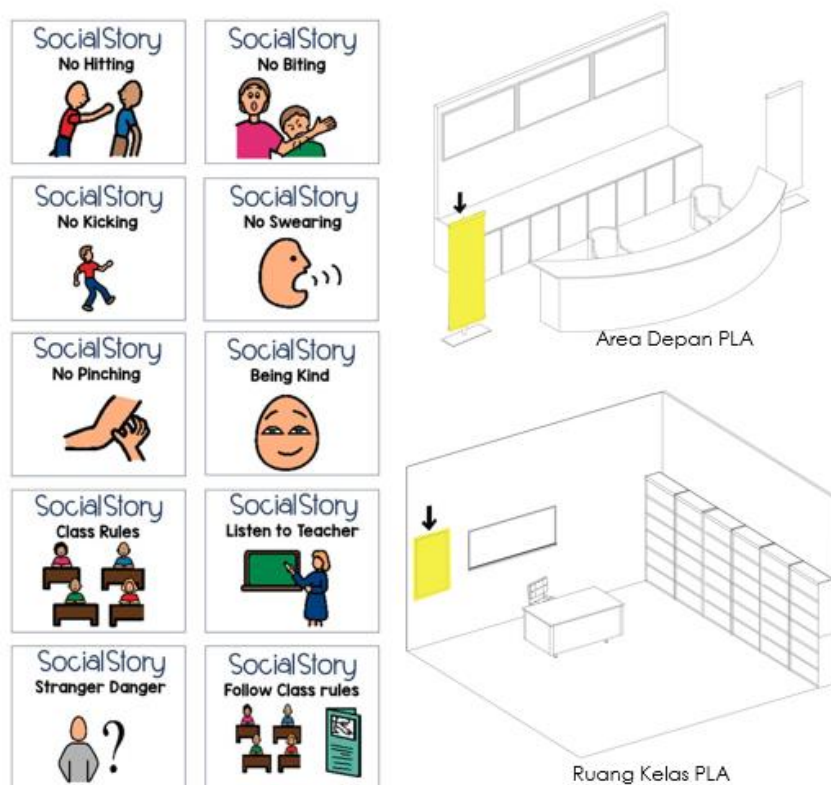
Figure 5. Visual Design Concept and Layout Reminder of Regulations in Denpasar City PLA

D. Visual Tasks Or Sequences

Serves to understand the sequence of certain activities / tasks that must be completed by students, this will be very useful in training their independence. This form of visual media has cognitive and compensatory functions. Here is the concept of the visual script that we designed for Urination Exercises for Men and Women, which is shown by the image below.
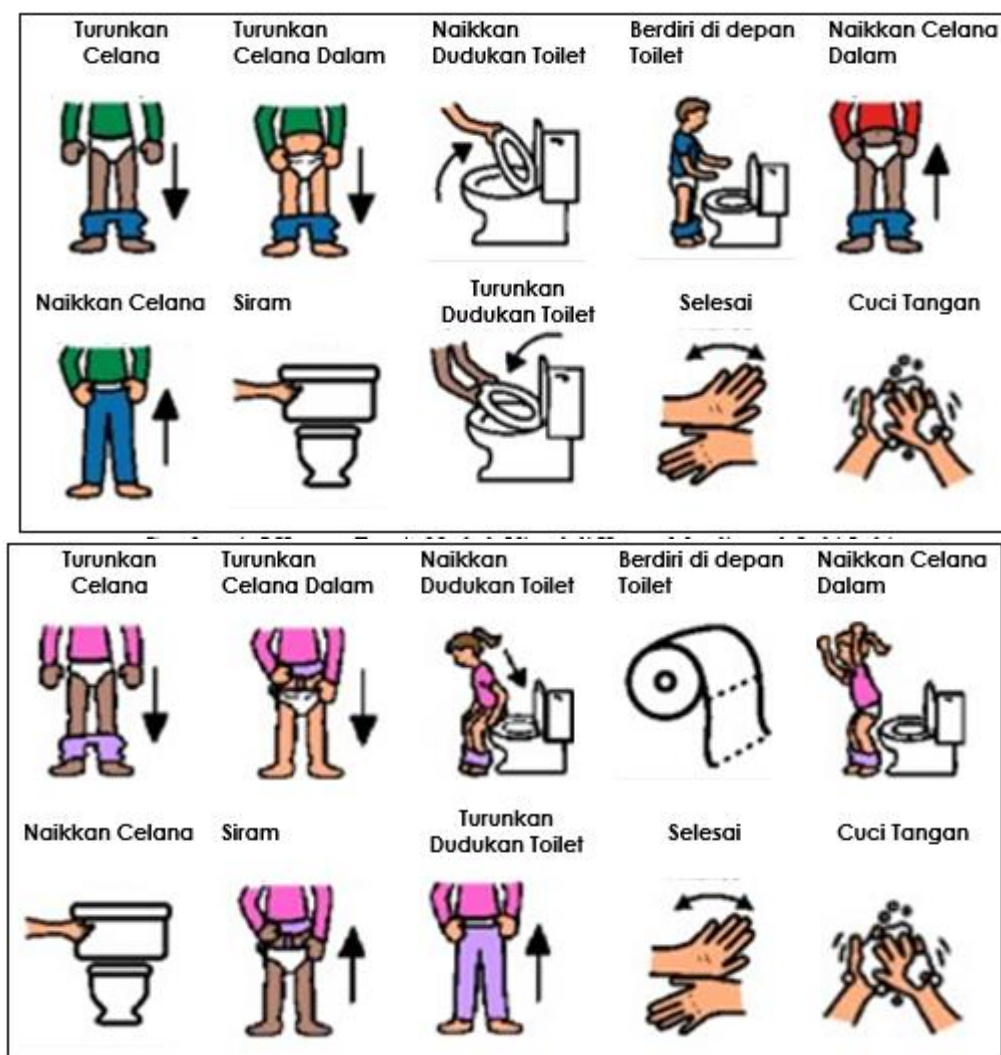
Figure 6. Visual Script Design Concepts in the Bathroom for Boy and Girls

4. Conclusion

Making visual media or visual support is expected to be able to meet the needs of PLA in Denpasar City, especially for students with special needs. In the midst of difficulties and limited funds to access various visual media facilities, PLA Denpasar City uses visual media that they make in a simple way. All of this is done to educate autistic children at PLA City Denpasr. It is hoped that the contribution of visual media design to PLA can improve partner conditions as follows:

1. With the more effective role of visual media in the successful learning of autistic students, it is considered necessary to have a graphic design to design visual media that will be used in accordance with the educational needs of students with special needs.
2. Visual media can be used freely for learning media, so that PLA Denpasar City no longer needs to download or buy foreign printed visual media which is relatively expensive and can only be accessed limitedly.
3. Language and visual adjustments according to the needs of students
4. Increased student learning outcomes will be maximized if the understanding of the concept of the application of visual media.

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