Sign System Design as Information Media in Darussalam Islamic Education Institutions Surabaya

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ABSTRACT
The Darussalam Islamic Education Institute has KB, PPT, TK, and TPA study groups. The building environment has not been equipped with a conducive environment, with a large number of study groups and the number of students making students feel less comfortable and safe. Every corner at LPI Darussalam can be used as a vehicle for learning for the development of children's basic abilities. LPI Darussalam requires a sign system as a medium for information on space instructions, space markers, and appeals to support the student learning process by using the pre-production stage including design strategies, communication strategies, creative strategies, and media strategies, the production stage includes visual concepts, and post-production stages include media implementation. With a sign system equipped with Darussalam students' illustrations and the use of bright colors and the selection of materials and sizes that are adapted to the students' space for playing and learning, it can be used as a vehicle in learning for the development of basic abilities for children's growth which includes aspects of language, cognitive, physical development, motor skills and art and students will feel safe and comfortable during the learning process at LPI Darussalam and teachers and students can interact optimally.

Keywords: Design, Darussalam, environment, school, sign system

Introduction
The teaching and learning process is the main key in the world of education, especially in schools. Education should be carried out when the child has not yet entered elementary school. A school is a place where the teaching and learning process (PBM) takes place because there is an interaction between teachers and students, where teachers and students are the two most important components. Throughout the lifespan of human development, early childhood belongs to a golden age that is classified as sensitive, so at this time, children are easily receiving stimuli from their environment. At this time, children are ready to carry out various activities to understand and master their environment. Children at the golden age will begin to be sensitive to receiving various stimulations and various educational efforts from their environment. At this time, physical and psychological functions mature so that they are ready to respond and realize all developmental tasks that are expected to appear in their daily behavior patterns (Ariyanti, 2016).

LPI Darussalam is an Islamic Education Institution in which there are KB (Playgroup), PPT (Integrated Early Childhood Post), TK (Kindergarten), and TPA (Child Care) study groups or commonly called Daycare. LPI Darussalam is under the auspices of the Darussalam Islamic Boarding School Foundation which is located on Jl. Gunung Anyar Lor No. 48 Surabaya. LPI Darussalam has the slogan "Be Smart Moslem" which means Becoming a smart Muslim/Muslimah. While the vision of LPI Darussalam is "Creating Quality Early Childhood Based on Islamic Values".

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where early childhood is molded to become quality individuals and fostered Islamic values from an early age.

Students who are members of LPI Darussalam are in the age group of 2-6 years, where the age of 2-6 years is a playing period for children, and playing is the best way to develop abilities according to the competencies set out in the curriculum. The learning curriculum structure used by LPI Darussalam is a game that stimulates children's creativity and is fun. Activities in the delivery of learning are mostly carried out in the classroom because learning facilities and infrastructure are widely available in the classroom and allow children to focus more on learning, it's different than outside the classroom, there are only playing facilities and infrastructure. In addition to the classroom arrangements, the learning environment outside the classroom must get the same attention to be arranged in a systematic and well-planned way as well. A well-organized outdoor environment will have a positive impact on children's learning so that such an environment can provide the right stimulus to stimulate children and they can respond to it well. Mariyana and Setiash in their research stated that "Activities in outdoor learning environments where children play are an integral part of children's development and learning programs. The outdoor learning environment is beneficial and effective in helping children's development who have multiple intelligences that vary, so the outdoor learning environment must be a part that needs to be managed properly and seriously. The importance of providing a conducive learning environment for early childhood can stimulate and develop children's potential." (Mariyana & Setiash, 2017).

The school environment should be arranged with high safety and comfort and adapted to children's activities so that they can interact optimally with teachers and other children, so it will create a conducive environment and a good teaching and learning process. Every corner of the school can be used as a new vehicle for students, so it can become a learning object and learning source for a child growth's basic abilities development. According to Windayana, a child will be easier to understand a learning material if it is done by playing because children feel there isn't any coercion so they can do it independently (Masnuna & Mulkhan, 2022)

After observing the LPI Darussalam building environment, several things need to be considered, i.e: the LPI Darussalam environment has not been used optimally as a learning resource. In every room of the LPI Darussalam building, there isn't any sign system that can provide directions, prohibitions, or warnings for visitors who come to know more about the exact location inside the building. Besides being useful for visitors to LPI Darussalam, the sign system is also very important and useful for children.

Sign (in Indonesian means tanda) is a form of communication that can be used in verbal and visual forms. The existence of a sign becomes an important point for the public because it can show information about something. Piliang states that a sign is not an exact science, but something that is built by more open knowledge (Tinarbuko, 2009). The most important thing in the sign system in visual communication design is the function of the sign in conveying a message from the sender of the message to the recipient, based on a certain code, which is mediated by certain media. Meanwhile, Sachari states that a sign system can be interpreted as a system that regulates the flow of certain information or certain messages by using sign media as a message (Sachari, 2004). The sign system is closely related to visual elements and related to architectural elements as the medium of the sign system. The sign system itself is part of a term known as wayfinding, which is a method that regulates or directs people through the sign system media so that they follow the direction as they wish.

An information system that is integrated and able to be packaged in a visually attractive way can be a solution to various problems that exist in LPI Darussalam. Sign System has several types, including:

1. Identification Sign
   An identification Sign is a sign that is used to distinguish between an object and other objects, such as the identity of an office, building, company or product.
2. Directional Sign
Directional Sign is signs that include arrows that can direct the target object to a place, such as a room, road, or another facility.

3. Information Sign
This sign shows information about official information and should not be messed up with direction signs.

The types of sign systems described above can be used to create a sign system based on their needs. For example, in a building several different rooms make people confused about the name of the room, if each room in the building is equipped with a sign system, it will make it easier for visitors to find or distinguish between room 1 and other rooms (Hariyanto et al., 2011). From some of the references above, it means that the sign system is a sign that can inform the public about the existence of a place. This place can be interpreted as a location, object, or anything.

Based on the results of research conducted by Masnuna entitled Sign System Design for Berbek Village-Owned Enterprises (BUMBER), this design refers to the output of the sign system that has been produced at BUMDes Berbek (Masnuna & Susanti, 2021). The outputs are in the form of an information sign, a direction sign, and an identification sign. So that in this design we can adopt materials, sizes, systems, and sign system techniques. The following are the output documentation for BUMDes Berbek (Bumber).
Material and Methods

The method used to design the LPI Darussalam sign system goes through 3 stages so that the produced information media is appropriate to the needs of LPI Darussalam and its students and is based on scientific visual communication design. The 3 (three) stages referring to the method used by Masnuna are the pre-production stage (before production), the production stage (when produced), and the post-production stage (after production) (Pradana & Masnuna, 2021).

**Pre-production**

Data collection techniques

Supardi said that the observation method is an activity to investigate the field directly by taking notes and documenting it in photos or videos systematically (Okalia, 2020). Observations were done in the LPI Darussalam environment to observe the circulation of the LPI Darussalam building, the visual identity color of LPI Darussalam, and the learning process. The problem which was found after making observations at LPI Darussalam is the lack of media in conveying information or in showing a place that only uses writing without accompanying it with pictures where the environment for early childhood has not been given a reading lesson. The information system at LPI Darussalam in visual studies does not pay attention to design elements and is not accurate to target, to solve this problem it is necessary to design information media starting from children, for children, and by children which have the definition that visual information media has the character of students at LPI Darussalam. After designing a character that is intended for
children that aims to stimulate the development and growth of children, the next process is the child will respond to do so with action.

LPI Darussalam has the slogan "Be Smart Moslem" which means to be a smart Muslim/Muslimah. The slogan is included in the logo of LPI Darussalam accompanied by pictures of moeslem students as representatives of the vision and mission of LPI Darussalam.

LPI Darussalam's vision is to Create Quality Early Childhood Based on Islamic Values. While the missions are: 1) Familiarize children with Islamic behavior in every activity; 2) Sharpen Children's Independence, Confidence, and Responsibility; 3) Sharpen the potential of multiple intelligences possessed by children; 4) Become a forum for socializing and expressing for students.

The location of LPI Darussalam is very strategic because it is located around industries and offices. The building area of LPI Darussalam is 400 m² consisting of 2 (two) floors. The 1st floor consists of a TU room, cooperative, prayer room, teacher parking area, TPA, dining room, toilet, teacher's room, TPA room, play room. The 2nd floor consists of KB room, TK A room, TK B room, and a meeting room.

There are several wall decorations as an attraction to increase students' enthusiasm for learning such as the work of LPI Darussalam students.

There are several information media in some rooms such as the Administration room, toilets, and classrooms, but the information media does not have an integrated design with the identity of LPI Darussalam yet. It also cannot be used by students as a learning medium, because not many young children can read, so the information media can only be used by adults. The content of the existing information media only contains instructions for the location of the TU room, while there are still many rooms that require information media but are not equipped with information media. Information media such as prohibitions and warnings are also not visible in the LPI Darussalam environment, even though these media are needed by children so that they can be careful in their activities.
In this design, in-depth interviews were conducted directly with the Head of LPI Darussalam, Andri Budi Cahandrajati, S.S, S.Pd. to explore more specific and valid information about the character of Darussalam students and the teaching and learning process at LPI DARUSSALAM. This information is important for the designer as a reference material to make characters, and illustrations, determining the color of the sign system, the shape of the sign system, and the letters in the sign system to help the designer more easily determine the appropriate art style for the target audience. According to the results of the interview, the characters of LPI Darussalam students are cheerful children, who love to play and try something new. While the learning and teaching process at LPI Darussalam is playing outside the classroom and learning in the classroom, the KB-TKA-TKB class uses red and yellow uniforms.

Data analysis techniques
Data analysis is an activity in processing the data that is obtained to generate simpler conclusions to answer existing problems and phenomena (Pradana & Masnuna, 2021). According to Masnuna, analytical techniques are needed to organize the order of the data and arrange the data groups so that the right theme can be determined in formulating an idea (Putriyani & Rahmayani, 2020). After collecting observation and interview data and describing the current situation and condition of LPI Darussalam, it can be analyzed using the 5W + 1H technique. This analysis is used to find out more clearly the urgency of LPI Darussalam's needs. The analysis is subjective based on observations made by the designer. The analysis is:

a. What: An Islamic Education Institution named LPI Darussalam which has a vision of Creating Quality Early Childhood Based on Islamic Values. LPI Darussalam consists of TPA, PPT, KB, and TK groups. Has the slogan "Be Smart Moslem” which means to be a smart Muslim/Muslimah. Located on Jl. Gunung Anyar Lor no. 48 Surabaya.
b. Who: The target is specifically for LPI Darussalam students aged 3-6 years old
c. Why: Information media in the LPI Darussalam environmental area is incomplete and made simple so that it cannot be used by LPI Darussalam students to the fullest where
information media should be used by students to learn to know about the instructions for the place and school rules and as a sign system.

d. Where: The sign system is placed in the LPI Darussalam environment, precisely in classrooms and strategic areas that are easily accessible by students.

e. When: Information media is placed and used every day during student learning hours in the LPI Darussalam environment.

f. How: Information media in the form of a sign system is designed to make it easier for visitors of LPI Darussalam and to stimulate students' attention, interests, thoughts, and feelings to achieve the learning goals.

The conclusion from the 5W + 1H analysis is a summary of the urgency of LPI Darussalam's needs at this time, i.e LPI Darussalam requires information media in the form of a sign system that can provide a lesson for LPI Darussalam students in the form of places/spaces direction and information, prohibitions, and warnings.

**Target Audience**

This sign system is intended for audiences who are: 1) Demographic, i.e boys and girls aged 3-6 years old, having the status of PAUD and Kindergarten students, 2) Psychographics, i.e likes to play, likes to learn new things, interested with creative things, etc, 3) Geographically are children who live in urban areas.

**Production**

In the making of information media at LPI Darussalam, one must have a concept that can represent the identity of LPI Darussalam and has a concept close to the target audience by making a character that becomes an icon or symbol in conveying information. The strategy is to create a strong character with imaginative images and strong imagery with the target audience to attract attention and respond to take action.

The visual concept of the icon that will be implemented in the sign system refers to the identity of LPI Darussalam as an Islamic educational institution where all of its students use Muslim and Muslimah uniforms, to bring up Muslim and Muslimah identities, the icons of LPI Darussalam students will be wearing uniforms and wearing caps for boys and veils for girls as the basic form.

1. **Layout**

The main media is made so attractive by making a character that is used as an icon or symbol to convey information about place descriptions, directions, and warnings or appeals, by choosing to use a center layout it is intended so that children focus on the information conveyed with the main form made with characters which differ to show some information.

2. **Illustration**

The function of illustration is to explain a text and at the same time as an eye-catcher (Supriyono, 2010). Illustrations will make it easier for readers to understand the contents of the book through visuals. According to Weiten, a person's perception of something can be influenced by the senses, so the illustrations in the book can be a factor to make the audience pay more attention to the contents of the book (Priyata et al., 2020). The illustration in the LPI Darussalam sign system is made as attractive as possible into an imaginative and simple image so that it can be accepted and understood. The illustration on the LPI Darussalam sign system refers to the character of the students of LPI Darussalam which during the learning process all students wear uniforms with the attributes of a cap for boys and a veil for girls. Then the image is distilled or simplified in shape to become an attractive image and easily understood by children so that the learning becomes more fun.
3. Typography
The typography used in this information media is letters that have children's characters which are usually used as titles on children's book cover.

4. Color
Color is one of the design elements that affect the message. The color in the sign system serves to give the impression of the conveyed information. The color which is used in the LPI Darussalam information media is white for the letters to create a sincere and clean impression according to the color of the clothes on the LPI Darussalam logo. White is used for the letters' color on the LPI Darussalam sign system. The red color represents the impression of strength and determination in the signs so in the LPI Darussalam sign system design, red is used to represent the information sign type of sign system as a warning and prohibition sign. The green color gives a natural, fresh, and family impression. Green is also the color used in the LPI Darussalam logo in describing the outline of the children's image on the logo and the color nuances of the LPI Darussalam building. In the sign system, the green color is used as the base color in the identification sign type of sign system.

Post-production
Media implementation
After the sign system is executed and made real according to the pre-production and production stages, the next step is to implement or install all information media within the LPI Darussalam environment. The material used for the sign system is molded acrylic with a thickness of 3mm. Molded acrylic has advantages which are Lighter than glass, More impact resistant than glass, Does not react to sunlight, is Resistant to outdoor weather, Can be recycled, is Resistant to chemical reactions compared to other plastic materials, Environmentally friendly and non-toxic, Easy to clean and maintain, Acrylic clarity can last for years, Transportation and installation of acrylic building materials is easier and cheaper (Alfari, 2017).

Results and Discussion
Characters of LPI Darussalam students
According to the observations made by designers in the LPI Darussalam environment, during the teaching and learning process, KB-TKA-TKB students wear yellow and red uniforms and wear caps for boys and veils for girls. The main characters are LPI Darussalam students according to the target audience in this design.

Figure 11. Characters of students - LPI Darussalam
According to the results of interviews with the Head of LPI Darussalam, the characters of LPI Darussalam students are children who are in the age range of 3-6 years old and who are cheerful, love to play and learn. So that the illustrations in the sign system must be able to describe the activities of students by the identification space and the recommended prohibitions/appeals. Made explains that an Illustration is an image that can explain a writing, article, script, or other communication media as an attention grabber and clarify the purpose of the writing (Zakiyah, 2020). Meanwhile, Hartono explained that humans tend to prefer visuals in the form of images and colors because images have many meanings (Perdana et al., 2021).
Sign system

The form of the sign system is adapted from the character of children's toys that have attractive shapes and are made of acrylic material with a thickness of 3 mm. The identification sign and Direction sign are green colored by the results of the visual concept that represents the color nuances of the LPI Darussalam building. Meanwhile, the Information sign is red colored to give assertiveness to the target audience for the information conveyed such as appeals and prohibitions. In the Sign System design, the logo of LPI Darussalam is attached as the owner of the institution, and the logo of UPN “Veteran” Jawa Timur as the funder and the holder of the Sign System Copyright.

![Identification Sign][Direction Sign][Information Sign]

Figure 14. Sign system form

Illustration implementation to sign system

After the character illustration is drawn according to the room theme, the illustration is implemented into the sign system according to the room name in question. The implementation of the illustration to the sign system is adjusted to the layout with the sign system's shape and space so that the message drawn in the illustration can be conveyed properly to the target audience.

![RUANG MENJAJI][TEMPAT WUDHU][TK - A1][TK - B1]

Figure 14. Sign system form
Figure 15. Illustration implementation to Identification Sign

Figure 16. Illustration implementation to Information Sign
Figure 17. Illustration implementation to Direction Sign

**Sign system implementation to LPI Darussalam environment**

After the sign system is designed according to the concept, it is produced using acrylic material with a size of 30x20 cm. Then the sign system is applied in every room in the LPI Darussalam environment.

Figure 18. Identification sign implementation at LPI Darussalam
Conclusion

The design of the LPI Darussalam sign system that the research team has done has received a very positive response from the teachers, the leadership of LPI Darussalam, and also the most important thing is the parents of new students who have not memorized the names of each room in the LPI Darussalam building yet. The following points are obtained from the implementation of the LPI Darussalam sign system:

1) Parents of new students find it easier to find the classroom to be addressed, so there is no commotion in the LPI Darussalam building.
2) The visual identity of LPI Darussalam is easier for the public to recognize through the sign system.
3) LPI Darussalam students are more conducive and comfortable in receiving lessons because all corners of the school room are equipped with the name of the room as well as the appeals and prohibitions that they must obey.
4) LPI Darussalam students find it easier to learn room names and restrictions from the illustrations embedded in the sign system.
5) LPI Darussalam teachers are easier to introduce room names, appeals, warnings, and prohibitions to their students.
6) With the integrated sign system, the nuances of the LPI Darussalam environment will increasingly feel its visual identity.

As for the unresolved shortcomings, i.e LPI Darussalam does not have promotional media yet that is integrated with visual identity. The examples are:
1) Instagram is one of the media that can be used to promote or publish announcements to be known by the wider community, but the LPI Darussalam Instagram account is not utilized optimally. In Visual Communication Design science, the Instagram feed is the right medium for publishing photos of LPI Darussalam activities or announcements, and the Instagram feed template can be designed to match the visual identity of LPI Darussalam so it looks neater and easily recognized by the public, and more appealing.

2) LPI Darussalam also does not have a profile video yet that can introduce itself to the wider community, even though profile videos are very important for an agency to make it more easily recognized and understood by the public, especially for prospective guardians of students who are looking for KB or kindergarten schools.

3) LPI Darussalam does not have a website yet, but so far, the website is one of the effective media used to share information such as announcements, photos of activities, school fees, school materials, etc. The website is also a medium that is easily accessible by the public anywhere and anytime.

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