Indonesian Journal of Multidiciplinary Research

Mascot Design for Sustainability of Playgroups Learning Media

Merlina Fatimah Nasruddin*, Yully Ambarsih Ekawardhan*, Satria Indra Praja Persada

Universitas Komputer Indonesia, Bandung, Indonesia
*Correspondence: E-mail: merlina@email.unnikom.ac.id

A B S T R A C T

This article aims to show the design of a mascot for a playgroup in Kabupaten Bandung. The designed mascot will be used in student learning media. The method used is descriptive research in the form of systematic, accurate, and factual descriptions of the facts, characteristics, and relationships between the phenomena studied. The research implementation process refers to art-based research, which emphasizes deepening the situation in the playgroup. Furthermore, it is used as the basis for the occurrence of the mascot design creation event. Mascots can create an emotional bond between the brand and the user, to produce an interesting and memorable story. Mascots can also perpetuate student loyalty and commitment to maintain learning motivation. The result is a mascot design that can be implemented in student learning media. Mascots representing types of vegetables can be a learning medium as well as building positive awareness among children towards types of vegetables that are good for their growth. Cultivating enthusiasm for consuming good and enjoyable food.

1. INTRODUCTION

Mascots are visual elements that play a crucial role in representing the identity of an entity, both individuals and institutions, including educational institutions. As a representative symbol, mascots not only function to distinguish one entity from another but also become an effective communication medium in conveying values, missions, and unique characteristics. In the context of educational institutions, mascots can be a powerful tool to create emotional bonds with students, especially children, while promoting local culture and values. Thus, mascots are not just attractive images or characters, but also strategic elements in building effective identity and communication (Kongdee *et al.*, 2020; Bergmark & Danker, 2022; Radomskaya & Pearce).

Mascots have a unique and multifunctional role in representing an institution or brand, not only as a visual symbol that makes it easier for the public to recognize, but also as a tool that can create emotional connections with the target audience. A well-designed mascot can be an effective means of building an institutional identity while facilitating more personal and are visual elements that play a crucial role in r relatable communication with the target audience (Möller, 2019). Mascot design must consider the psychological and emotional aspects of humans. Thus, the characters presented can create deep emotional bonds (Smith, 2020; Pairoa & Arunrangsiwed, 2016). Mascots designed with an anthropomorphic approach (giving human characteristics to non-human objects) can increase emotional involvement and audience memory of a brand or institution. Emphasized that mascots also function as educational tools, especially in the context of educational institutions, where mascots can be used to convey moral messages and positive values to children. In other words, mascots not only function as visual representations of an institution but also as a medium that can touch the emotional side of the audience, making them feel more connected and personally involved (Bergmark & Danker, 2022).

Based on those references and perspectives, mascots are visual elements that have an important role in building the identity of an institution, including playgroup schools. Mascots not only function as representative symbols but also as effective visual communication tools, especially for children. In remote areas, where access to educational and entertainment resources is limited, mascots can be a powerful medium to convey educational messages and build emotional bonds with children. Therefore, designing mascots for children's playgroups in remote areas requires a mature approach, taking into account aspects of identity and visual communication.

Mascot design for playgroups in Kabupaten Bandung can be an innovative solution in creating sustainable and attractive learning media for early childhood. Mascots not only function as a symbol of identity but also as an educational tool that can facilitate the learning process in a fun and interactive way. In Indonesia, especially in Kabupaten Bandung, early childhood education (PAUD) schools have begun to utilize mascots as learning media, such as PAUD Al-Azhar Bandung, which uses mascots in the form of local animals, such as mouse deer, to teach moral values and local wisdom. However, the use of mascots in Indonesia is still limited to the visual aspect and has not fully optimized the potential of mascots as a holistic learning medium. In contrast, in Japan, mascots have become an integral part of early childhood education culture. For example, in **Figure 1,** the character mascot "Kumamon" from Kumamoto Prefecture is not only used as a tourism icon, but is also adapted by PAUD schools to teach social and environmental values to children.

Figure 1. Mascot "Kumamon" from Kumamoto Prefecture and its electric train.

The main difference between the use of mascots in Japan and Indonesia lies in the approach and integration into the learning curriculum. In Japan, mascots are designed with a more comprehensive approach, combining educational, psychological, and cultural aspects, while in Indonesia, mascots are still often only used as decorative or symbolic elements without an in-depth development strategy. Therefore, the design of mascots for playgroups in Kabupaten Bandung needs to adopt a more holistic approach, considering aspects of sustainability, local wisdom, and integration into the learning curriculum. Thus, mascots can be an effective and sustainable learning medium for early childhood (Pairoa & Arunrangsiwed, 2016).

The research object used as a case study in the research is one of the PAUD organizers in the city of Bandung, namely the Al Murtala Play Group. Al Murtala Play Group is an Early Childhood Education Organizer located at Kp. Kadatuan RT 01/02 Mekarpawitan Village, Paseh District, Bandung Regency. This school was founded in 2007. Kober Al Murtala is located in the Al-Murtala Paseh Islamic Boarding School environment, which was established around 1930. The interview technique with the Principal and Head of Management, named Nolis Siti Kulsum, S.Pd.I was carried out to find out general knowledge regarding the organizers of Kober Al Murtala Early Childhood Education. This school institution was founded because access to early childhood education in the area was very minimal. KOBER has been established for a long time, but it does not yet have brand awareness.

2. LITERATURE REVIEW

In modern design theory, mascot design considers various functional and emotional aspects because the success of a mascot is related to its implementation, whether it is a solution to the problems of the institution and its target elements or is less effective. In designing a mascot for this playgroup educational institution, the emotional, humanistic, and versatile aspects are emphasized. Thus, it can adapt to various media and contexts of use. The following is a basic theory that is structured and applicable in creating mascot designs:

2.1. Emotional Design - Donald A. Norman

Donald Norman's approach in Emotional Design highlights that good design must be able to build an emotional connection with the user. Several studies state that "Attractive things work better," which means that visually appealing designs will improve the overall user experience. Three main levels of emotional design can be applied in creating mascots:

(i)   Visceral Level (Instinctive Level). The mascot must have a strong visual appeal at first glance. Colors, facial expressions, and shapes must be easily recognizable and intuitively appealing.

(ii)   Behavioral Level (Functional Level). Mascots must be able to function as clear visual communication elements. Must be able to convey stories, values, or messages from the brand with their expressions, poses, and attributes.

(iii) Reflective Level (Meaning Level). Mascots must have meant that can be associated with the audience's identity. Design elements must be able to build personal connections with users.

2.2. Humanistic design (Human-Centered Design – Don Norman and IDEO)

The Human-Centered Design (HCD) approach emphasizes that design must be centered on humans and their emotional needs. According to IDEO in 2015, "Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success." In creating a mascot, this approach includes:

(i)   Empathy for the Audience: Understanding the target audience: their age, culture, psychology, and habits in consuming products/brands.

(ii) Storytelling and Mascot Personality: Provide a background story for the mascot to make it livelier and more memorable. The mascot's personality can be determined based on the brand persona, whether it is cheerful, strong, funny, or wise.

(iii) Interaction and Adaptability: The mascot must be able to interact with the audience on various platforms, whether in digital, print, or merchandise.

2.3. Versatility in Mascot Design (Flexibility and Multiplatform Adaptability)

According to literature (Lidwell *et al.*, 2010), "Simplicity and flexibility are key elements in design that ensure usability across different contexts." In mascot design, this principle includes:

(i)   Scalability and Simplicity: The mascot must remain clear and effective in various sizes (small icons to large billboards). Avoid overly complex details. Thus, it remains easily recognizable in various media.

(ii) Modular Design and Expression Variants. Create variations in expressions and poses to increase the flexibility of use.

(iii) Adaptive Branding. Mascots should be able to adapt to seasonal themes or specific campaigns without losing their core identity.

3. METHOD

This study uses a qualitative approach with a literature study and case analysis methods. Data were collected from international journals related to identity design and design methods from modern design theory, and applied by lifting a case study of the KOBER Al Murtala Education institution, which has the potential to be made into an Institution mascot, which will later be applied in various school infrastructure facilities related to students. The mascot design process includes several stages, namely:

(i)   identification of local values and characteristics of children in the school environment, namely the Al Murtala Islamic boarding school, Kadatuan Village, and the culture and values applied in the environment

(ii)   creation of a design concept based on the Art-Based Research (ABR) method and the modern design theory approach of Donald Norman and IDEO,

(iii) development of mascot visuals by considering the principles of visual communication, and

(iv) Testing and evaluation of the mascot.

ABR is a research approach that integrates art in the process of collecting, analyzing, and presenting data. This method is used to understand human experience through forms of creative expression such as visual art, music, dance, theater, and poetry (Lomas, 2010).

According to several researchers, ABR is not just using art as an illustration, but making it part of the scientific investigation process. The creative process in ABR helps researchers capture emotional nuances and subjective experiences that are difficult to express with traditional research methods (Gerber & Siegesmund, 2022). Characteristics of Art-Based Research:

(i) Using Art as a Research Method. Art becomes the main instrument in exploring social and psychological phenomena (Belfiore & Bennett, 2007). The design of the mascot for Kober Al Murtala considers a visual style that is in line with the tastes of the target audience, not only the values carried out by all Foundation devices, but also by the preferences of student children.

(ii) Oriented on the Creative Process. Focus on how experiences, emotions, and meanings can be expressed through art (Lomas, 2010). The activities of children who are students include playing and creating indoors, outdoor exploration activities, including Hajj rituals and nature exploration, as well as sports and art performances. Instilling Islamic religious values in children's daily lives and various exploration activities that form special experiences in children's minds also means the formation of positive characters that develop children's potential in a better direction.

(iii) Subjective and Interpretative. In the mascot design process, references to visual styles and other art approaches are needed as a spark for ideas to approach and shape children's preferences for images. Data in the form of artistic expressions that are analyzed qualitatively to understand human experience (Gerber & Siegesmund, 2022).

(iv) Collaborative and Reflective → The involvement of research partners, namely Kober Al Murtala, determines the success of the creation of the mascot, attempted through observation interviews with structural officials of the Institution who also serve as principals and teachers. Often involving the participation of research subjects in creating artwork as part of the exploration (Belfiore & Bennett, 2007). Relevant stakeholders are also involved in the evaluation of the design and implementation of prototypes in the mascot design process.

4. RESULTS AND DISCUSSION

To design the design concept, interview observations were conducted with the headmaster of the KOBER Al Murtala school. From the results of the interview with Nolis, the target audience for designing the mascot was determined, including:

(i) Demographic. The target is early childhood students, namely 3-4 years old, from the lower social class, because this school was built for social and humanitarian reasons by its founder.

(ii) Geographical. Located in Kadatuan Village, Bandung Regency, which is located around the Al Murtala Islamic Boarding School environment, which has the characteristics of a rural Islamic atmosphere filled with trees and a fish pond. Close to rice fields and dominated by small roads.

(iii) Psychographics. Students are accustomed to a boarding school environment that has a tradition of respect and obedience to teachers, especially Koran teachers, and behavior that follows Islamic teachings. According to their age category, these children have a naive nature, have a high enthusiasm for playing, and are cheerful. More specifically to

the research subject, children in rural areas such as Kadatuan Village are usually raised in an environment that prioritizes family values, cooperation, and simplicity. Parenting patterns in rural areas tend to be more traditional, with parents playing a strong role in educating children. However, sometimes there are limitations in access to information about modern parenting styles. However, sometimes there are limitations in access to information about modern parenting styles. Children in rural areas often have more opportunities to play outdoors and interact with nature, which can support their motor development and creativity.

Based on the analysis of the target audience, a specific design concept for the mascot was created using Donald A. Norman's modern design theory approach based on the ABR. Donald Norman's approach in Emotional Design highlights that good design must be able to build an emotional connection with the user. Attractive things work better, meaning that a visually appealing design will improve the overall user experience. Concepts are categorized into various aspects, emotional aspects of design, and humanistic aspects of design.

4.1. Emotional Design Aspects.

Children tend to have a certain sensitivity to unique images that are close to their daily lives. Children also tend to have a preference for models that attract their attention and can be emulated for their behavior in their daily lives. Easy to process by their cognition, so mascots with anthropomorphic types meet this criterion. Characters who have traits and characteristics that are common to humans are an important part of creating this mascot, because the use of characters who have certain roles can position themselves as representatives of someone in the real world (Ekawardhani *et al*., 2020). Anthropomorphic mascots or those with gestures and expressions like those of humans are made to have a strong, attractive value at first glance. Consideration of striking, passionate, and cheerful colors, as well as cheerful facial expressions, and using shapes taken from the characteristics of vegetables that are easily recognizable and attractive.

Children tend to be active, impulsive, and have a high need for rules, even though some of them don't like them. From these considerations, a mascot is needed that can represent their innocent traits, along with being given characteristics that represent learning or education. Mascots are made to have cheerful expressions of children. Thus, they can function as clear visual communication elements and represent images that convey values or messages from KOBER Al Murtala with their expressions, poses, and attributes. From the educational aspect, the forms of vegetables that are good for their bodies when consumed are introduced.

Mascots are made from the characteristics of vegetable objects because there is a request from partners. Thus, vegetables are more easily recognized by children and can help arouse children's tendencies towards vegetables. This reason is made. Thus, the mascot has a meaning that can be associated with the identity of the audience. Another reason is the indication of malnutrition or lack of access to health services occurring in the Kadatuan village area. Of course, malnutrition can affect the physical and cognitive development of children, so introducing vegetables to children and efforts to raise the spirit of consuming vegetables are considered important. In addition, the form of vegetables from nature also brings a positive perception and is easily accepted because vegetables come from nature, as do humans. Humans are naturally more easily connected to nature, both mentally, physically, and psychologically. There are three vegetables represented in the form of mascot visualizations, with the consideration that children are accustomed to diversity and represent the potential of diverse children, as well as vegetables that have various benefits. The three mascots include:

(i) **Figure 2** presents a mascot that has a representation of carrots. Physically, the shape of carrots has a length that is high upwards, this kind of scale makes it easy to apply mascots into school media, such as height measuring instruments. In addition, carrots are also a food that they can easily find around them. At home, parents of students are very likely to cook food made from carrots.
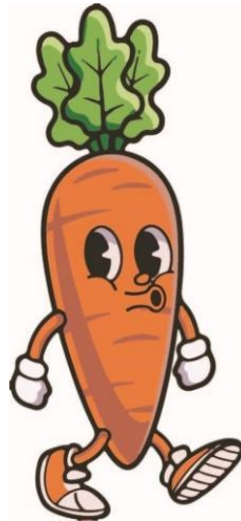

Figure 2. Mascot representation from a carrot.

(ii) **Figure 3** presents mascots that represent broccoli. Broccoli is a vegetable that is rich in vitamins that are very good for children's growth and development, but generally, not all children like this type of vegetable, either because of its texture or color. Creating a mascot that represents broccoli can increase children's awareness of this vegetable playfully. Through the visualization of broccoli that looks strong and cheerful, it is hoped that it will build its strength for children. The use of broccoli mascots can be used in media that raises the topic of physical health, such as learning media for sports events.

Figure 3. Mascot representation from broccoli.

(iii) **Figure 4** presents a mascot that has a representation of tomatoes. Like other vegetables that are made into mascots, tomatoes are vegetables that are good for children's growth and development. Tomatoes are also vegetables that are commonly found in natural processed foods that are usually consumed by children. Tomatoes are chosen because they have a red color that can raise children's spirits and courage. In another aspect,

tomatoes have a round shape. The round shape has high stability as a box, but the dominance of curves makes it look more supple, flexible, and friendly. The stability in question represents Islamic values as teachings that guide children's daily lives.
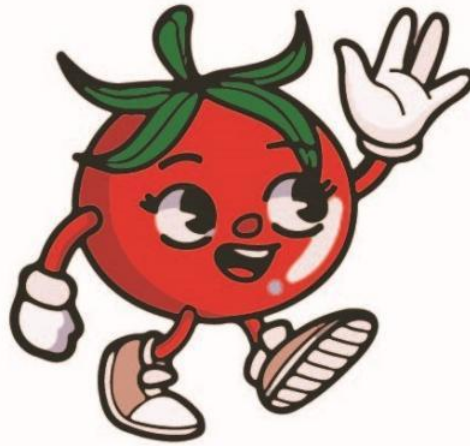

Figure 4. Mascot representation from a tomato.

(iv) **Figure 5** presents the mascot design elements are made to have gestures like cheerful children to build personal connections with students. The characteristics displayed in the mascot are easy-going, enthusiastic, and friendly.

Figure 5. All mascots united for KOBER Al Murtala.

4.2. Aspects of Human-Centered Design – Don Norman and IDEO

The Human-Centered Design (HCD) approach emphasizes that design should be centered on people and their emotional needs (Göttgens & Oertelt-Prigione, 2021; Melles *et al*., 2021; . According to IDEO in 2015, "Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success." In creating this mascot, this approach includes:

(i) Empathy for the Audience: Kober Al Murtala is located in an Islamic boarding school environment that has been established for a long time and has become an important part of the progress of civilization for the local population. The children who are students are dominated by residents around the Mekarpawitan Village and the Kadatuan Village area. Psychographically, these children tend to have strong social ties with their families and neighbors. The probability of their interaction with digital tends to be less due to minimal

internet access, so they are more accustomed to direct social interaction compared to children in urban areas, who are more exposed to technology. The natural rural environment often triggers children's curiosity and exploration of the surrounding nature, such as playing in rice fields, rivers, or gardens. This positive personality becomes the character of the mascot.

(ii) Interaction and Adaptability: The mascot is intended to be able to interact with the audience on various platforms, both in digital, print, and merchandise forms. The carrot mascot can be used for a height meter, while broccoli and tomatoes, which tend to be full and round, can be used for learning media related to the vegetables themselves, and also for other learning media (Hashim *et al.,* 2020; Rasim *et al.,* 2021).

5. CONCLUSION

The design of a mascot for Kober Al-Murtala using the characteristics of vegetable objects is an innovative step that combines Islamic values, the cheerful and explorative nature of children, and an effort to arouse children's emotional closeness to vegetable forms. Vegetable-based mascots not only reflect the values of health and simplicity that are in line with Islamic teachings, but also become an effective medium to teach the importance of a healthy lifestyle and gratitude for the gifts of nature. The diverse characteristics of vegetables, such as bright colors and unique shapes, can attract children's attention, while their cheerful and explorative nature can be represented through a dynamic and interactive mascot design. Thus, this mascot is not only a symbol of the school's identity, but also an educational tool that supports Islamic values and encourages children to be closer to nature, especially vegetables, as part of daily learning. Through this approach, the Kober Al-Murtala mascot is expected to be a fun and meaningful representation for students, while reflecting the school's vision and mission in forming a healthy, cheerful, and noble generation.

6. ACKNOWLEDGEMENT

7. REFERENCES

Belfiore, E., and Bennett, O. (2007). Determinants of impact: Towards a better understanding of encounters with the arts. *Cultural trends*, *16*(3), 225-275.

Bergmark, J., and Danker, S. H. (2022). Race-based mascots: Reflecting on university–community conversations. *International Journal of Education through Art*, *18*(1), 75-88.

Ekawardhani, Y. A., Santosa, I., Ahmad, H. A., and Irfansyah, I. (2020). Modification of visual characters in Indonesian animation film. *Harmonia: Journal of Arts Research and Education*, *20*(2), 167-175.

Gerber, N., and Siegesmund, R. (2022). Innovations in arts-based research: ABR provocations from the 16th International Congress of Qualitative Research. *International review of qualitative research*, *15*(2), 147-167.

Göttgens, I., and Oertelt-Prigione, S. (2021). The application of human-centered design approaches in health research and innovation: A narrative review of current practices. *JMIR mHealth and uHealth*, *9*(12), e28102.

Hashim, S., Masek, A., Abdullah, N.S., Paimin, A.N., and Muda, W.H.N.W. (2020). Students' intention to share information via social media: A case study of covid-19 pandemic. *Indonesian Journal of Science and Technology*, *5*(2), 236-245.

Kongdee, N., Prapawong, S., and Jintapitak, M. (2020). The designing of institute's educational mascots for brand identity. *Advances in Science, Technology and Engineering Systems Journal*, *5*(6), 1759-1777.

Lomas, T. (2016). Positive art: Artistic expression and appreciation as an exemplary vehicle for flourishing. *Review of General Psychology*, *20*(2), 171-182.

Melles, M., Albayrak, A., and Goossens, R. (2021). Innovating health care: Key characteristics of human-centered design. *International Journal for Quality in Health Care*, *33*(Supplement_1), 37-44.

Möller, K. (2019). The role of mascots in building institutional identity. *Journal of Visual Communication*, *12*(3), 45-60.

Pairoa, I., and Arunrangsiwed, P. (2016). An overview on the effectiveness of brand mascot and celebrity endorsement. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, *10*(12), 3536-3542.

Radomskaya, V., and Pearce, P. L. (2021). Adding character: The role of destination mascots in tourism development. *Tourism Management*, *84*, 104248.

Rasim, R., Rosmansyah, Y., Langi, A.Z., and Munir, M. (2021). Immersive intelligent tutoring system for remedial learning using virtual learning environment. *Indonesian Journal of Science and Technology*, *6*(3), 507-522.

Smith, J. (2020). Designing mascots for children: A psychological and cultural perspective. *International Journal of Design*, *14*(2), 78-92.