STUDY OF CLASSROOM TYPES AND CATEGORIES OF PAUD STUDENTS BASED ON THE CONCEPT OF ANIMAL ASSISTED EDUCATION (AAE)

Redi Sigit Febrianto¹, Risa Juliadilla², Tutut Nanti Prihatmi³

¹Lecturer of Architecture Study Program, Faculty of Civil Engineering and Planning, National Institute of Technology Malang, ²Lecturer of Psychology Study Program, Faculty of Socio-Cultural Sciences, Gajayana University Malang, ³Lecturer of English Language Engineering Program, Faculty of Industrial Engineering, National Institute of Technology Malang

Abstract. In this study, animal assisted education (AAE) is a blend of three sciences: architecture, psychology, and education. The AAE room for PAUD students is designed in the form of classroom pets that are learning-play-interacting (1) about animals, (2) with animals, and (3) for animals. Many psychological and educational studies have been conducted on AAE, but few have linked them to architecture. The goal of this research is to learn about the activities, participants, embodiment of the AAE space, and the impact of space on PAUD students. The research design is qualitative, and the material presented is based on the narrative strength of past research on AAE. The hermeneutic research strategy interprets the embodiment of the AAE space's impact space based on activities and participants. Variables were chosen based on a survey of literature from AAE research journals in the domains of psychology, education, and architecture. This research employs two forms of analysis: content analysis and thematic analysis. Thematic analysis is used to evaluate the spatial manifestations and impacts of AAE, whereas content analysis is used to identify the sorts of AAE activities and participants. At the conclusion of the study, it was discovered that there are two types of AAE rooms and two categories of AAE rooms that are consistent with the concept of AAE rooms for PAUD children, namely classroom pets.

Keyword: AAE, classroom pets, classroom category, classroom type

1 Introduction

This research is a combination of three fields, namely the field of architecture (the embodiment of the AAE space), the field of education (the concept of AAE) and the field of psychology (the impact of AAE on PAUD students). Animal-assisted education (AAE) is defined as a concept of education by involving animals in the teaching and learning process.
The general objective of this research is to explore how a good system (architecture) based on AAE activities (education) and its impact on PAUD students (psychology).

At the PAUD level the concept of space used is classroom pets (Born, 2018; Gee & Fine, 2019), in contrast to elementary and junior high school students who use the concept of science classes, as well as high school and college students who use the concepts of biology, psychology, anatomy and physiology. classes (Gee et al., 2017). Early childhood education (ECE) (Fauzi & Novikasari, 2019; Harper & Obee, 2020) is seen as a critical and sensitive period in all stages of child development. This condition of early childhood will be more open to learning certain behaviors and can learn certain skills more easily (Harper & Obee, 2020).

In developed countries, the concept of animal assisted education (AAE) has been widely studied and applied. In developing countries the concept of animal assisted education (AAE) has just developed into a new trend (Juliaidilla, 2020). However, it is undeniable that the use of the concept of animal assisted education (AAE) in education classes for early childhood is a growing phenomenon (Sandt, 2019) and is popular (Friesen, 2010). Some AAE research in developed countries is generally heavier in the field of education and psychology, there is still very little AAE research related to the architectural field.

2 Literature Review

There is research on the relationship of animals to other fields, namely: Animal Assisted Therapy (AAT) (Boe, 2008; Cieślak et al., 2019; Fredericksen, 2019; Friesen, 2010; Hettema, 2002; Kaufmann, 1997; Koketsu & Sekiguchi, 2003; Lee et al., 2019; Linder et al., 2017; Morris, 2014; Rosenburg, 2016; Stefaninia et al., 2016). Animal Assisted Interactions (AAI) (Arkow, 2010; Gee et al., 2017; Morrow, 2019; Zhi et al., 2020). Animal Assisted Activities (AAA) (Alshaheen, 2019; Hawkins et al., 2017; Kaufmann, 1997). Several AAE studies related to the field of education with the field of psychology. that is:

- implementation of the AAE concept (Ngai et al., 2021), (Gee & Fine, 2019), (Sandt, 2019);
- AAE opportunities and opportunities (Arkow, 2010), (Fredericksen, 2019)
- AAE developments and effects (Lee, Yoo, & Kim, 2019), (Gee, Griffin, & McCardle, 2017);
- AAE behavioral studies (Hawkins, Williams, & SPCA, 2017);
- AAA, AAT and AAE collaboration (Kaufmann, 1997);
- AAE and AAT collaboration (Morris, 2014);
- integrated farming system based on AAE (Zhi, Aziz, & Taib, 2020).

Theories about AAE subjects/participants: (1) educators/teachers; (2) animals and (3) students (Gee & Fine, 2019). Three-element theory of AAE (a) with animals, (b) about animals and (c) for animals (Born, 2018).
3 Methods

3.1 Research Design

This research design uses a qualitative type (Creswell, 2010). The characteristics of the qualitative research design in this study are: (1) presenting information on the background of the problem based on the strength of the narrative (Creswell, 2010) all matters related to AAE; (2) collecting variables / units of observation based on literature review (Creswell, 2010) related to AAE activities, AAE participants, type of AAE room and purpose of the AAE room; (3) does not involve counting numbers (Creswell, 2010) in describing spatial planning based on AAE participants’ activities; (4) using deep structure/latent analysis (sharp and deep) (Bengtsson, 2016) regarding the AAE spatial layout and the AAE space objectives; (5) aims to interpret, explore and understand (Creswell, 2010) AAE element theory (Born, 2018).

3.2 Research Strategy

The hermeneutic research strategy (Ashadi, 2017; Purwantiasning, 2018) is used to interpret the relationship between AAE activities and participants to the type of space and the purpose of the space. Hermeneutics serves to interpret the reality (Sutanto, 2020) of AAE activities; describe the origins / history (Snodgrass & Coyne, 2005) of the development of AAE in developed countries and describe the meaning (Pattiasina, 2018) of the relationship between AAE activities and participants to the type of AAE space.

3.3 Metode Pengumpulan Data

The data collection process was obtained based on a literature review, especially in determining the variables/units of observation. For a thorough and in-depth understanding, most of the literature sources come from scientific journals with the theme of animal assisted education (AAE) and nature assisted education (NAE). However, to support the completeness of the data, literature sources also come from the themes of animal assisted interaction (AAI), animal assisted activity (AAA) and also animal assisted therapy (AAT).
3.4 Data Analysis Method

The data analysis method uses two types of analysis, namely: content analysis (Bengtsson, 2016; Rejeski, 1982) and thematic analysis (Poerwandari, 2007) from AAE-themed journals. Content analysis writer tries to interpret and explore journals about AAE based on four variables / units of observation, namely: (1) AAE activity, (2) AAE participants, (3) AAE-related type of space and (4) the purpose of the space. In the thematic analysis stage, the writer tries to explore the interrelationships of the four variables/observation units.

4 Results and Analysis

4.1 AAE Activities and Participants

Animal-assisted education is unique, cannot be replicated and varies (Ngai et al., 2021). Research on AAE in developed countries is generally applied to early childhood education (ECE) (Born, 2018) and early childhood special education classroom (ECSE) (Sandt, 2019).

AAE-related participants consist of teachers, students, animals (Gee & Fine, 2019); but other studies add participants in the form of: animal professionals, animal lover communities, families (Born, 2018). In the case of animal assisted therapy (AAT), companion animals even involve parents, adolescents and children (Friesen, 2010) in the scope of therapy and class. Research on human-animal bonding is a growing and multidisciplinary field of study that deserves attention (Friesen, 2010).

For PAUD class students, the application of AAE in the context of the classroom is in the form of classroom pets (Born, 2018; Gee & Fine, 2019). Classroom pets activities in the indoor area can be in the form of activities explaining favorite pets (Born, 2018; Nebbe, 2009) using media (posters, pictures, toys, animal-shaped dolls (Nebbe, 2009); doing zoomorphism activities (imitating animal movements), imitating animal sounds, imitating animal behavior and imitating the way animals move and explaining animal habitats) (Born, 2018).

At certain times it is better for schools to hold activity sessions for bringing animals into the classroom (Nebbe, 2009) and there are even animal visit sessions from animal-loving organizations into the classroom (Sandt, 2019) accompanied by an animal professional/mentor (Gee et al., 2017). In developed countries, dogs even participate in learning to read (Friesen, 2010; Ngai et al., 2021), the impact is real in improving the reading process (Morris, 2014). The manifestation of indoor space from this activity can be in the form of: (1) a stage area for explaining animals, (2) a play area with animals and (3) a learning area with animals.

Classroom pets activities in the outdoor area can be in the form of visiting the offices of animal lover organizations (Nebbe, 2009); visiting pets in school grounds, participating in rescue missions at animal care organizations (Nebbe, 2009); visiting veterinary hospitals (Nebbe, 2009); visiting zoos, farms, oceanariums (Gee, Griffin, & McCardle, 2017). By visiting areas outside the classroom, PAUD students can learn about the smells, sounds, textures and colors of animals so that they can increase their affective sense (sympathy and empathy), a
sense of responsibility and routine behavior (Born, 2018; Pearson, 2011). The embodiment of space from this activity can be in the form of (3) a mini zoo area in the school garden, (4) even outside the school such as a zoo, animal husbandry, oceanarium; (5) classroom areas in animal care organizations offices and (6) animal hospitals

4.2 Perwujudan Ruang AAE

To explore the soul of children, adults need to understand childspace (Born, 2018). It is important for adults to enter, support the childspace that is uniquely located in the child's experience, namely the affordability of animal-child.

A. Within the Scope of School

AAE activities within the scope of the school can be in the form of: (1) stage area, (2) study area and (3) play area. Subjects who participated in the stage area were students (Born, 2018; Nebbe, 2009); teachers (Sandt, 2019) as well as professional animal handlers (Gee et al., 2017). Subjects who partitioned in the classroom area were students (Born, 2018; Friesen, 2010; Ngai et al., 2021). Subjects who participate in the play area are students (Born, 2018).

1. Class Stage Area
   • students explain about pets using media (posters, pictures, toys, animal-shaped dolls (Born, 2018; Nebbe, 2009);
   • students carry out zoomorphism activities (imitating animal movements, imitating animal sounds, imitating animal behavior and imitating how animals move and explain animal habitats) (Born, 2018);
   • the teacher holds an animal visit session from an animal loving organization into the classroom (resident classroom animals) (Sandt, 2019) accompanied by an animal professional/mentor (Gee, Griffin, & McCardle, 2017);

2. Study Area in Class
   • students are allowed to bring animals into the classroom (Nebbe, 2009) and learn to read with animals (Friesen, 2010; Ngai et al., 2021);
   • students are given the task of feeding the fish and cleaning the aquarium (Born, 2018)

3. Playground Area in Class
   • students make crafts and animal motif decorations in the classroom (Born, 2018);
   • animals (dogs) assist in the process of teaching and learning activities in the classroom for 1 school year (Friesen, 2010; Juričková et al., 2020; Ngai et al., 2021)

4. School Zoo in School Area
   • students and teachers visit pets in school gardens;
   • students help feed pets (Morris, 2014)
   • animals come into play outside the classroom (Juričková et al., 2020)
B. Outside the Scope of School

AAE activities outside the school can be in the form of: (1) school garden area, (2) animal care area and (3) zoo area. Subjects who participate in the school garden area are: students (Morris, 2014). Subjects participating in the veterinary care area were: students and teachers (Nebbe, 2009) accompanied by professional/animal companions (Gee, Griffin, & McCardle, 2017)

1. Animal Care Area at the Animal Care Office
   - students and teachers visit the offices of animal care organizations (Nebbe, 2009)
   - students and teachers participate in rescue missions in animal care organizations (Nebbe, 2009)
   - students and teachers visit veterinary hospitals (Nebbe, 2009)

2. Zoo Area
   - students and teachers visit zoos, farms, oceanoriums (Gee, Griffin, & McCardle, 2017).

4.3 RESULTS AND DISCUSSION

Animal assistance-based education (AAE) for PAUD students is suspected as a learning activity, playing as well as interacting with animals, has three concepts, namely: (a) about animals, (b) with animals and (c) for animals (Born, 2018). The embodiment of the AAE space with the concept of animals is generally mostly done indoors, while the concept with animals and for animals is generally more done indoors and outdoors.

education about animals entails reaffirming a commitment to critically scrutinizing animal depictions in EC contexts. As professionals who care about both children and the natural world, we must realize the influence of stereotypical, negative, or unrealistic portrayals of animals on children's perceptions of animals and their connections with animals (Born, 2018). The concept of learning-play-interacting "about animals" for PAUD students is generally indoors in the form of: (1) the stage area, (2) the study area, (3) the play area and (4) the reading area. The learning-play-interacting concept “about animals” for PAUD students in these four areas aims to: acquire authentic knowledge about animals, develop an accurate understanding of animals, provide authentic depictions in media, games, toys, and other related materials whenever possible. with animals, understand more deeply about animals (understanding the behavior, movements, sounds and habitats of animals) (Born, 2018). Another goal is to involve children in thinking about animals, learning about, and building knowledge about animals based on realistic depictions, and discussions about real animals in “real life” (Born, 2018).

Maintaining consistency in AAE activities is very difficult, because it involves interactions between humans and animals that are unique, new and unpredictable (Ngai et al., 2021).

The concept of learning-play-interacting “about animals” for PAUD students refers to indoor activities in the form of telling stories about animals in the stage area, learning about
animals in the study area, playing with animals in the play area and reading with animals in the reading area. As for some types of animals that are often mentioned in the concept of learning-play-interacting "about animals" are: dog, cat, duck, horse, bear, bird. (Melson in (Arkow, 2010); geese and squirrels (Born, 2018).

Education with animals entails searching out affordances and encounters with animals, both wild and domestic, and accepting that merely being with or around animals is beneficial and vital in and of itself. Rather than the prevalent mindset of learning "from" animals (which suggests that they are either a teacher or a tool, both with a purpose in service to humans), learning with animals entails considering them as partners in the experience, members of a natural community with agency and autonomy (Born, 2018). The concept of learning-play-interacting "about animals" for PAUD students is generally indoors in the form of: (1) reading area, (2) playground in the school garden and (3) garden area outside the school in the form of a zoo. The learning-play-interacting concept “about animals” for PAUD students in the area aims to increase empathy for animals (Gee & Fine, 2019; Pearson, 2011; Rothgerber & Mican, 2014); reducing violence against animals (Pearson, 2011); identify and understand oneself in relation to other beings, and through interactions with others (Born, 2018).

The concept of learning-play-interacting “with animals” for PAUD students refers to indoor activities such as reading with animals in the classroom area (indoor) and seeing, feeding and caring for animals. As for several types of animals that are often mentioned in the concept of learning-play-interaction "about animals" are live animals such as dogs (35%), cats (22%), small mammals (18%), fish/reptiles/amphibians (21%), birds (2%), and other (4%) (Hawkins et al., 2017) or images of animals, incorporated into lessons and activities (Gee, Griffin, & McCardle, 2017). Pets are more likely than siblings or fathers to be a part of a child's upbringing. And when a pet dies, vanishes, or is abandoned, 80 to 90 percent of American youngsters experience their first loss of a loved one. Traditional education, on the other hand, treats animals as things to be studied separately from the context of everyday life, with little studies on the impact of classroom animals on young children (Arkow, 2010)(Arkow, 2010).

The concept of learning-play-interaction “for animals” for PAUD students in these four areas aims to: initiate engaging in conversations, discussions, and experiences that enable children to begin to wrestle with a sense of ethics, justice, and caring for animals (Born, 2018); recognize and understand animal emotions and share or have emotional responses that go along
with animal emotions. Although not limited to a specific emotion, empathy most often refers to

![Types and Categories of AAE Classroom Embodiments](image)

**Figure 3.** Embodiment of AAE Classroom

5 **KESIMPULAN**

There are two categories of space based on the shade, namely inside the school and outside the school. Playing and learning activities in the classroom refer to two AAE concepts, namely: (1) about animals and (2) with animals. In contrast to playing and learning activities outside school, it refers to the AAE concept, namely: (3) for animals. Playing and learning activities about animals aim to provide knowledge about animals (either in the form of native animals or through the media). Playing and learning activities with animals aims to increase empathy for animals, oneself and others. Play and learning activities for animals aim to recognize and understand animal emotions and reduce acts of violence against animals. This study found two categories of space (indoor and out-of-school) and two types of space (indoor and outdoor) which were in accordance with the AAE concept for classroom pets students.

**References**

**Jurnal**


Linder, D., Mueller, M., Gibbs, D., & ... (2017). The role of veterinary education in safety policies for animal-assisted therapy and activities in hospitals and nursing homes. *... medical education. doi:10.3138/jvme.0116-021


**Prosiding**


**Book Section**


**Book**


Lee, S., Yoo, J., & Kim, O. (2019). Development and effects of animal-assisted play therapy programs for improvement of elementary school character education.

Morris, M. (2014). Humane education, the inner worlds of animals and animal assisted therapy.

**Thesis, Disertasi**


