

# PIONEERING EXPERIENTIAL INTEGRATED PRE-SCHOOL DESIGN ARCHETYPE IN MALAYSIA

Aida Kesuma Azmin, Wan Akfan Ikhlan Mahmood  
Department of Architecture, Kulliyah of Architecture and Environmental Design KAED,  
International Islamic University Malaysia, IIUM  
[aida\\_kesuma@iium.edu.my](mailto:aida_kesuma@iium.edu.my)

---

## ABSTRACT

Early childhood education plays an important role in developing assertive nation. In order to become a productive member of the nation, children should be nurture to grow holistically and equipped with abilities, knowledge and skills. Physical environment is one of the crucial aspects in helping to shape the behaviour and children's development. At present, most pre-school design in Malaysia are based on converted buildings, hence, the learning environments are not specially designed to cater for the actual needs of children to develop healthily and positively. The study highlights the relevance of experiential architectural approach to pre-school design to facilitate emancipatory preschool design, with integrated "Education and Care" concept.

**Keywords:** *Experiential Architecture, Pre-school Design, Physical environment, early learning, child development.*

## INTRODUCTION

This research is accumulation of the fourth year topical study (A study on Experiential Architecture and the first half of a design thesis, entitled "City of Kids: An Experiential Approach towards Pre-School Design, Bachelor of Architecture, LAM Part 2, of the second author, by supervision of the first author.

On honouring the children and bringing them up well, our beloved Prophet, Muhammad (PBUH) mentioned, "*Verily, your children are Gifts for you*".

(Hadith, Ibnu Majah).

## PROBLEM STATEMENT

Current issues in early childhood development in Malaysia, either in education or care is alarming. For instance, poor environment quality, education facilities and services lead to poor children's performance. The study emphasizes that in order to optimize our children's education, an integrated preschool is vital. By this, an integrated pre-school means Education + Care. Sylva & Moss (1992) in "*Learning Before School*" assert that education service with childhood care would also improve young children's educational performance. Whilst, Zaleha (1999), demonstrates that 70 % of working parents have children below the age of six years old. 67% of working parents prefer to send their children to preschools, which provide day care programme. These findings suggest the impending need to

optimise children education quality, i.e. in terms of the education service, and childhood care.

In Malaysia, the low quality early childhood learning and development is alarming. As the study discovers that only 15% of the classroom are well defined, whereas there is an overwhelming 85% of the classrooms are moderately or poorly defined. Social Psychologist, Datuk Dr Chiam Heng Keng, claims that, “many pre-schools in Malaysia are teaching children the wrong way and not providing the right environment.”

Among the problems include limited spaces (indoor & outdoor) for children to play; the teaching methodology is more inclined to formal teacher-directed rather than child-centred, and most learning and play activities take place at the same room/space.

### RESEARCH GAP

There have been a number of valuable studies in addressing the empirical investigation on the children learning environment (Manyike T.V, 2012; Malone Karen and Tranter Paul, 2003) all of which present the physical infrastructure and safety facilities, however none of these studies provides a clear picture of the learning environments through experiential architecture in terms of the, spatial design, lighting, colours and textures and their relation in terms of developing qualitative children's development.

The education goals include to nurture students' potential in all aspects of development; to master basic skills and to develop a positive attitude as preparation to enter primary school. Report from Early Childhood Education Forum (ECEP, 1998, p11) Learning Through Play defines the foundations of children's play” Belonging and connecting; Being and becoming; contributing and participating; being active and expressing; thinking imagining and understanding. These efforts are supporting evident of the researcher's endeavour to explore on experiential architecture in order to cultivate quality pre-school design for children in Malaysia.

### RESEARCH AIMS AND OBJECTIVES

The aim of this paper is to develop an archetypal design module for an integrated pre-school dedicated for children between four to six years old, which would feature “learning through play” environment in nurturing holistic aspects of children's development.

Among the objectives, include: to identify the definition of integrated education and care pre-school concept; to establish “learning through play” environment for children; and to seek the impact of “learning through play” environment towards children development.

### LITERATURE REVIEWS

*“A child's mind, like a flower, is a living thing. We can't make it grow by sticking things on it anymore than we can make a flower grow by gluing on leaves and petals. All we can do is surround the growing mind with what it needs for growing.” - John Holt*

Malaysia has always played a great role in ensuring education for all children. In line with Education For All (EFA) movement initiated by United Nations Educational, Scientific and Cultural Organization (UNESCO), many efforts have been done through various sectors involving Early Childhood Care and Education Council (ECCE) in achieving the goal. One goal is to provide better and more possibilities to support young children (age 0-6) in all the areas where the child is growing physically, emotionally, socially and intellectually. The Government Transformation Programme (GTP) is an effort by Malaysian Government in addressing seven National Key Results Areas (NKRAs) concerning the people of the country and one of the keys is improving students' outcomes. GTP 1.0 showed that a focussed effort on improving students' outcomes can be successful and this has encouraged NKRAs to broaden its scope in the second phase of the GTP.

The GTP 2.0 will see the improvements of the quality of pre-schools and increasing the classes by private and public providers. However, to improve the quality of the pre-school, the GTP 2.0 focussed on the education system only, but neglecting the physical learning environment. This situation has resulted the existence of pre-school in designated building or any converted existing classroom for public sector and any converted shop lots and houses for private sectors just suit the purpose of teaching and learning but neglecting the quality of physical learning environment.

All children are precious assets to our society. They are core human capital resources in the future. In order to develop a nation and its people, it begins with early childhood education. It is the parents' duty to ensure their children get the best opportunities to develop. The government's responsibility is to help parents in bringing out the best potential for the children to grow and shine. In developing a child's aptitude, we are in reality developing the human capital of the child and of the nation. Children have to grow holistically so that they are equipped with abilities, knowledge and skills to become productive members of the nation.

#### EXPERIENCING ARCHITECTURE

Architecture has the ability to bring emotional impacts on humans. A good architecture, which considers the needs of human beings, will create memorable places that exceed people vision and expectation. This immersive experience explains how architecture speaks and interacts with people. People experience architecture through senses and emotions that will lead to certain behaviour in a particular space. Experiencing architecture is one of ways for people to acquire knowledge through their senses. Traditionally, there are five senses that make up the experience of the world - sight, touch, hearing, taste and smell. These sensorial experiences have large impacts on the relationship between human experience and the environment.

The physical environment plays a crucial role in helping to shape the behaviour and development of children. The quality of the environment determines the level of involvement of the children and interaction between adult and children. According to Kritchevsky and Prescott (1977), what is in a space, a room or a yard, and how it is arranged can affect the behaviour of people. It can make it easier to act in certain kinds of ways, harder to act in others. Research findings also have indicated that interactions with other people and objects are vital nutrients for the growing and developing brain, and different experiences can cause the brain to develop in different ways (Zero to Three, 2000). This suggests that, quality pre- school building helps the brain to develop well.

Welcoming spaces encourage children's natural responses of curiosity, exploration and communication. Carefully designed environments feature structures, objects and props that engage children in authentic choices, problem solving, investigating and discovering. The creation of an inviting learning environment supports children's social, emotional, physical, intellectual and spiritual growth and development. Inviting surroundings enhance children's positive disposition toward learning and sense of belonging. Creating environments for learning is more than simple room arrangement. Learning environments include both indoor and outdoor spaces and resources. Children benefit from rich and stimulating play choices outdoors as well as indoors. Responsive environments encompass the values of cooperative play, large muscle activities, high drama, messy play, the sounds of childhood, working through conflict and the importance of family engagement (Curtis, 2001).

Based on GTP 2.0 initiatives in providing quality pre-school and how important learning environment for children's qualitative development is, this research will probe further on the existing preschool and kindergarten in Malaysia in term of spatial experience and its relationship to the development of the children.

#### THE INITIAL DESIGN SCHEME PROPOSALS

KI Structure Plan 2020 has identified uneven distribution of government and private kindergartens. Within the chosen site of Wangsa Maju alone, there is a demand of about 71 new kindergartens. PERMATA Negara Programme for early education and care for children emphasised on the execution of enhancing children's ability to stimulate the mind. This strengthens the author's emphasis on implementing an Experiential approach towards kindergarten design scheme. The experiential design components include experimentation, exploration and exposition of different activity spaces within the compound of the freestanding kindergarten building complex.

Based on the findings, the researcher has established seven aspects of design considerations for designing Education+Care Model:

1. Spatial
2. Scale & Proportion
3. Lighting
4. Noise
5. Material
6. Colour
7. Indoor & Outdoor

#### SIGNIFICANCE OF RESEARCH

The finding of this research will provide some insights to pre-school and kindergarten design. Firstly, it will create awareness for the community on the possibilities of pre-school and kindergarten experiential architectural in developing the learning ability. In fact it will lead to the better quality of pre-school and kindergarten design for the future development. Based on the literature studies and case studies conducted, the researcher believes his aims and objectives are hypothetically answered. Firstly, It is imperative for architects, authorities and developers to decipher the significance of experiential architecture in early

childhood learning and development physical space provision, so as to harvest the long-term goal towards quality holistic future leaders in Malaysia

This research is hoped to help the improvement of the education scenario in Malaysia. Furthermore it is to ensure the pre-school and kindergarten re-established as a celebrated places for the children especially in providing a foundation of learning centre for the best quality of our future generations.

#### REFERENCES

- Abbott, L., & Langston, A. (2005). Birth to three matters: A framework to support children in their earliest years. *European Early Childhood Education Research Journal*. doi:10.1080/13502930585209601
- Alton J, D. L. (1974). Kinesic Signals at Utterance Boundaries in Preschool Children. *Semiotica*, 11(1), 43-74. doi:10.1515/semi.1974.11.1.43
- Berries, R., & Miller, E. (2011). How design of the physical environment impacts early learning: educators and parents perspectives. *Australasian Journal of Early Childhood*, 36(4), 102-110.
- Bilton, H. (2002). *Outdoor play in the early years: Management and innovation*. London: David Fulton.
- Clark, A. (2007). Early childhood spaces: Involving young children and practitioners in the design process. The Hague, Netherlands: Bernard van Leer Foundation.
- Cohen, J., National Conference of State Legislatures. & Zero to Three (Organization). (2005). *Helping young children succeed: Strategies to promote early childhood social and emotional development*. Denver, Colo: National Conference of State Legislatures.
- Curriculum Development Centre (2007). Early Childhood Care and Education Policy Implementation Review 2007. Ministry of Education Malaysia.
- Curtis, D. (2001, November/December). Strategies for enhancing children's use of the environment. *Child Care Information Exchange*, 42-45. Redmond, WA: Child Care Exchange.
- Curtis, D., & Carter, M. (2008). *Learning together with young children: A curriculum framework for reflective teachers*. St Paul, MN: Redleaf Press.
- Dudek, M. (2005). *Children's spaces*. Amsterdam: Elsevier.
- Early Childhood Care & Education (ECCE) in Malaysia at a Glance (for newborns to 6-year-olds) - Resources - SchoolMalaysia.com. (n.d.). Retrieved from [http://www.schoolmalaysia.com/resources/education\\_system.php](http://www.schoolmalaysia.com/resources/education_system.php)
- Economist Intelligence Unit (Great Britain) (2012). Starting well: Benchmarking early education across the world. London: Economist Intelligence Unit.
- Edwards, C., Gandini, L., & Forman, G. (1998). *The hundred languages of children: The Reggio Emilia approach—advanced reflections* (2nd ed.). London, England: Ablex.
- Epicstockmedia (Photographer). (2013) Cute Little Girl Reading Book Outside on Grass [Photograph], Retrieved June 23, 2014 from: <http://www.shutterstock.com/pic-153817541/stock-photo-cute-little-girl-reading-book-outside-on-grass.html?src=PS5DwrRy6S3EBRIUs8iKRA-1-1&pl=77643-108110>

- Faridah, A. H. (2008). *Education in Malaysia: a journey to excellence*. Kuala Lumpur: Educational Planning and Research Division (EPRD), Ministry of Education Malaysia.
- Futcher, C. (Photographer). (2012) Kids Playing [Photograph], Retrieved June 23, 2014 from: <http://www.istockphoto.com/photo/kids-playing-18229498>
- Gallahue, D. L., & Ozmun, J. C. (1995). *Understanding motor development: Infants, children, adolescents, adults*. Madison, Wis: Brown & Benchmark.
- Heschong, L. (1979). *Thermal delight in architecture*. Cambridge, MA: MIT Press.
- Institute of Medicine and National Research Council. *The National Children's Study Research Plan: A Review*. Washington, DC: The National Academies Press, 2008.
- Kamii, C., & DeVries, R. (1978). *Physical knowledge in preschool education: Implications of Piaget's theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Kamogawa, A. (2010). *Early Childhood Education in Malaysia: A Comparison with Japan*. Retrieved from [http://www.childresearch.net/projects/ecec/2010\\_05.html](http://www.childresearch.net/projects/ecec/2010_05.html).
- Karoly, L. A., Greenwood, P. W., Everingham, S. S., Houbé, J., Kilburn, M. R., Rydell, C. P., Sanders, M., & Chiesa, J. (1998). *Investing in our children*. Saint Monica, CA: RAND.
- Kritchevsky, S. & Prescott, E. (1977). *Planning environments for young children - Physical space*. Washington, DC: NAEYC.
- Kementerian Pendidikan Malaysia, issuing body (2013). *Malaysia education blueprint 2013-2025: Preschool to post-secondary education*.
- Kobyakov, S (Photographer). (2013) Children are Playing on Green Meadow Examining Field Flowers [Photograph], retrieved June 23, 2014 from: <http://www.shutterstock.com/pic-77193109/stock-photo-children-are-playing-on-green-meadow-examining-field-flowers-using-magnifying-glass.html?src=PS5DwrRy6S3EBRIUs8iKRA-1-1&pl=77643-108110>
- Laevers, F. (2005). The curriculum as means to raise the quality of early childhood education. Implications for policy. *European Early Childhood Education Research Journal*. doi:10.1080/13502930585209531
- Malaysia. Kementerian Pendidikan, issuing body (2013). *Malaysia education blueprint 2013- 2025: Preschool to post-secondary education*.
- MacNaughton, G. (2003). *Shaping early childhood: Learners, curriculum and contexts*. McGraw-Hill, Berkshire, England: Open University Press.
- Malaguzzi, L., Ceppi, G., Zini, M., & Reggio Children. (1998). *Children, spaces, relations: Metaproject for an environment for young children*. Reggio Emilia, Italy: Reggio Children.
- Malaysia. Kementerian Perumahan dan Kerajaan Tempatan. Jabatan Perancangan Bandar dan Desa Semenanjung Malaysia. (2012). *Garis panduan penubuhan: Tadika dan taska*. Putrajaya: Jabatan Perancangan Bandar dan Desa Semenanjung Malaysia, Kementerian Perumahan dan Kerajaan Tempatan.
- Malaysia (2012). *Garis panduan penubuhan: Tadika dan taska*. Putrajaya: Jabatan Perancangan Bandar dan Desa Semenanjung Malaysia, Kementerian Perumahan dan Kerajaan Tempatan.

- Malaysia. Unit Pengurusan Prestasi dan Pelaksanaan (2010). Program transformasi kerajaan: Pelan hala tuju. Putrajaya: Unit Pengurusan Prestasi dan Pelaksanaan, Jabatan Perdana Menteri.
- Malone, K., & Tranter, P. J. (2003). School Grounds as Sites for Learning: Making the most of environmental opportunities. *Environmental Education Research*. doi:10.1080/13504620303459
- Manyike, T. V. (2012). Assessment of the norms and standards for day care centres for preschool children in South Africa. *Anthropologist*, 14(6), 593-606.
- Maxwell, L. E. (2007). Competency in Child Care Settings The Role of the Physical Environment. *Environment and Behavior*, 39(2), 229-245. doi:10.1177/0013916506289976
- Moore, G. (1987). The Physical Environment and Cognitive Development in Child-Care Centres. In C. Weinstein & T. David (Eds.), *Spaces for Children: The Built Environment and Child Development* (pp.41-72). New York: Plenum Press.
- Moore, G. T., & Sugiyama, T. (2007). The Children's Physical Environment Rating Scale (CPERS): Reliability and Validity for Assessing the Physical Environment of Early Childhood Educational Facilities. *Children, Youth and Environments*, 17(4), 24-52.
- Nani, M., & Rohani, A. (2003). *Panduan mengembangkan daya fikir kanak-kanak prasekolah*. Bentong, Pahang Darul Makmur: PTS Pub. & Distr.
- Nicholson, E. (2005) 'The school building as third teacher' in Dudek, M. (ed.) *Children's spaces*, London, Architectural Press.
- Olds, A. (2000). *Child care design guide*. New York: McGraw-Hill.
- Pallasmaa, J. (2005). *The eyes of the skin: Architecture and the senses*. Chichester: Wiley-Academy.
- Pfaff, J. D. (2009). *Experiences in architecture*. Detroit, MI: The University of Detroit Mercy.
- Piaget, J. (1952). *The origins of intelligence in children*. New York: International Universities Press.
- Piaget, J. (1954). *The construction of reality in the child*. New York: Basic Books.
- Rasmussen, S. E. (1962). *Experiencing architecture*. Cambridge [Mass.: M.I.T. Press, Massachusetts Institute of Technology.
- Saskatchewan. Ministry of Education. Early Learning and Child Care Branch. (2008). *Play and exploration: Early learning program guide*. Regina, SK: The Ministry.
- Syncerz, M. (Photographer). (2013). Happy Children [Photograph], Retrieved June 23, 2014 from: <http://www.shutterstock.com/pic-10293082/stock-photo-happy-children.html?src=PS5DwrRy6S3EBRIUs8iKRA-1-1&pl=77643-108110>
- Unit Pengurusan Prestasi dan Pelaksanaan Malaysia. (2010). *Program transformasi kerajaan: Pelan hala tuju*. Putrajaya: Unit Pengurusan Prestasi dan Pelaksanaan, Jabatan Perdana Menteri.
- Unit Perancang Ekonomi, Jabatan Perdana Menteri (2008). *Garis Panduan Dan Peraturan Bagi Perancangan Bangunan*. Putrajaya.

- Verbanic, Ashley (2010). *Perceiving architecture: A experiential design approach*. Tampa, Fla.: University of South Florida.
- Vickerius, M., & Sandberg, A. (2006). The significance of play and the environment around play. *Early Child Development and Care*. doi:10.1080/0300443042000319430
- Weinstein, C. S., & David, T. G. (1987). *Spaces for children: The built environment and child development*. New York: Plenum Press.
- Whitehurst, G., and C. Lonigan. 1998. "Child Development and Emergent Literacy," *Child Development*, Vol. 69, No. 3, 848–72.
- Zakria, H. A. (2000). *Educational Development and Reformation in the Malaysian Education System: Challenges in the New Mil.*
- Zero to Three. (2000). *Starting smart: How early experiences affect brain development* (2nd Ed.). Retrieved April 18, 2009, from <http://www.zerotothree.org/startingsmart.pdf>

