

Approval Integrating the Indoor and Outdoor Physical Environments for Enhancing Early Childhoods Toward Their Learning Consonances in The Child Development Centers (CDCs) in Thailand

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Abstract

To integrate the indoor and outdoor physical environment management at the Child Development Centers (CDCs) for enhancing early childhood learning consonance development with the Project Strengthen Capacity of Local Communities in Caring for Children Aged 2-5 Years Treasures (COACT). To apply the laws, regulations, and order contextual authorities with the Local Government Organization for appropriating innovations at the 15-CDCs. Teachers' performances with curriculum and instruction, experiencing management of their work regularly operations, systematic manner standard quality, and academic principles. Most of the CDCs have enough sufficient IPEM and OPEM areas for playing activities. The loving families, strong social, and interpersonal skills while excelling academics, and effects in six main extracurricular activities: movement and rhythm, creative, freedom, experience, an outdoor, and educational game is provided in five principles; movement development, small muscle development and intelligence, language understanding, language development, developing self-help, and society goal for enhancing learning and conforming operations at CDCs. Comparisons between accounting the 15-indoor learning CDC centers following as linear equation $y = -4.002x + 32.00$ and the determination efficient predictive value (R^2) indicates of 0.90. The total area size of the 15 learning CDC centers by total area (square meters per 1 child) following as linear equation: $y = 3.112x - 9.254$ and the determination of efficient predictive value (R^2) indicates of 0.603, respectively.

Keywords: Physical environment management model, enhancement, early childhood development, learning consonances, the Child Development Centers (CDCs), children parents, and the Local Government Organization

Introduction

This research study was to physical environment management (PEM) model for enhancing early childhood development to their learning consonances in the child development centers of Thailand.

Early childhood

Early childhood – the first months and years of life – is the most important period of development in a child's life. It is a time of rapid brain development, language, social, emotional, sensory and motor development (UNICEF, 2018). In psychology, early childhood is usually defined as the time period of birth until the age of eight years (National Association for the Education of Young Children, 2018). The physical development in children follows a pattern. The large muscles are used for walking, running and other physical activities as gross motor skills, small muscles are used for fine motor skills such as picking up objects, writing, and drawing, throwing, and catching, etc (Oswalt, 2014). Emotional development includes expressions, attachment, and personality (Doherty & Hughes, 2009). There are

distinctive characteristics of friendships, for infants, toddler, and pre-school aged children called the preoperational stage by Jean Piaget, which the child repeatedly asks "Why?", and is used to build relationships with the child (California Infant/Toddler Learning & Development Foundations, 2013).

Early childhood care and education

UNESCO's approach is reinforced in the Education 2030 agenda and in particular in target 4.2 of Sustainable Development Goal 4 which aims to by 2030, ensure that all girls and boys have access to quality early childhood development (UNESCO, 2018). All children ages of 0-5 years are progressively cared for through quality ECD services and in the protective and nurturing family environments (UNICEF, 2018).

Ten characteristics of early childhood development

Carrie Cross (2018) reported that child development refers to the ability to accomplish more complex tasks as a child gets older. These are a group of skills that most children can

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accomplish during a certain age range.

Walking: This developmental stage for parents, between the ages of one and two, children will learn to walk.

Temper Tantrums: Children's emotional and social development might consist of temper tantrums in the most inconvenient places.

Memory: Intellectually, a child becomes aware of his/her world, pointing at objects that catch her eye, becoming familiar and remembering body parts, as well as family members and pets.

Words: A child becomes proficient at the words "No!", "Me!", "Mine!" and "More!". Children also become very good at babbling and imitating sounds like the dog or cat.

Toilet Training: Around the ages of two and three, children will be more interested in the toilet training.

Writing: From three to five, children will develop their fine motor movements. Stick people's drawings will have more detail and definition.

Imaginary Friends: As a preschooler, children's emotional scope broadens and they play but still take turns.

Talking: By the time, the preschool stage, children will be missing the good old days of one-word sentences.

Curiosity: The preschool age is famous for conversations with lots of "how come?" and "why?"

Concepts: Children are starting to put ideas and concepts into words and enjoy a good joke.

Characteristics of children under 6 years of age treated for early childhood caries

This retrospective survey highlighted the characteristics of children less than six years of age presenting with *Early Childhood Caries* (ECC) who had two or more teeth extracted under intravenous sedation? 93.6% of the children went to sleep with the bottle or while on the breast and 90% of them were fed on demand during the night. On average, breastfeeding was stopped at 9 months of age compared to bottle-feeding that was stopped at a much later mean age of 23 months and 52.6% of children brushed their own teeth without supervision (Mohamed & Barnes, 2008).

Qualities of a good teacher in early childhood development

The most important characteristic for teachers of early childhood development (ECD) is enthusiasm and passion for children. This goes well beyond enjoying being with children, overcoming any obstacle a child may have:

Patience and Humor: Working with young children all day takes huge measures of patients with short attention spans and little self-control.

Communication Skills: Teachers need to have learned effective skills for working with young children and for communicating with them at their level.

Respect for Differences: To reach each child and teach each child effectively, teachers must respect rather than try to force the child to adapt to another style.

Creativity and Flexibility: Planning lessons that will engage young children and educate them at the same time takes creativity and individual learning styles requires flexibility.

What does environmental mean in childcare?

Children are natural explorers and risk-takers. They move

quickly, put things in their mouths, drop or throw things, and love to climb and hide. Setting up a safe place to play and providing appropriate toys can keep children interested in learning, reduce behavior problems and save children from saying "No" too often: Try a child's eye view, make sure space is child-safe, arrange the space wisely, identify and cut off "runways", make sure there are enough toys, make sure the toys match the children's ages and abilities and teach children how to handle toys and materials (Child Care: A Part of the Cooperative Extension System, 2015).

Why is the environment important for children's learning?

Environments should be welcoming and interesting. The brain is a complex organ that is constantly physically changing itself. Throughout our lives, the brain re-wires itself based on experiences and different environments. This is why the concept of not using learning spaces that are simply a background for learning, and instead of creating responsive environments that generate interactive experiences, is so crucial to early learning (Roy, 2015).

What are the components of a good early learning environment?

Increasingly, children are growing up in families where all available parents are working—out of necessity as well as a choice (Workman & Ullrich, 2017), quality is not well-regulated or supported by local, state, or federal policies, putting it out of reach for most families (Malik et al., 2016). These six elements are keys to achieving and maintaining high quality in all early childhood settings: Curricula can be implemented for infants and toddlers, not just preschoolers; Family childcare providers could access quality improvement supports through a family childcare provider networks; and Providers serving predominantly low-income or dual language learners can tailor family engagement activities to take into account the unique needs of their populations (National Institutes of Health, 2016).

Determinants of preschool choices

How does the environment support early childhood's philosophy and curriculum?

Since most early childhood philosophies stress the importance of play, hands-on-learning, and whole child development, a good early childhood environment supports these activities (Prescott, 1994). The components of a learning environment are many and can be overwhelming. What should an environment for young children look like? How do you create an environment that supports learning and meets children's basic needs? (Harms & Clifford, 1998).

Physical environment management (PEM)

The learning environment needs to include engaging and developmentally appropriate materials and be arranged to promote independence and exploration based on children's different stages of development. Their environment needs toys that spark the imagination, such as play kitchens and that can engage them in problem-solving such as puzzles (Isbell, 2016). Learning centers clearly defined areas set aside in a learning environment where children can have easy access to materials and engage in independent and self-directed learning activities can be an effective way to

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organize and support developing abilities, encourage interactions, create opportunities for role-playing, and promote literacy skills (Stuber, 2007).

Physical environment management (PEM) model on early childhood development (ECD)

The problem statement, the physical environment of the classroom has an impact on various components of the teaching and learning processes. Recently, there has been research into the relationship between classroom management and the physical environment in elementary schools and the child development centers of the physical environment of the classroom. This study is a qualitative study where the data was obtained from a semi-structured interview schedule containing 16 questions; six pertained to demographic items while the remaining 10 open-ended questions aimed to investigate the teacher's perceptions of their responses.

The child development centers in Thailand

The Child Development Center in Thailand is supervised by 5 main Ministries, namely the Ministry of Social Development and Human Security, Ministry of the Interior Ministry of Education, The Ministry of Public Health, and the Ministry of Labor, which is 5 co-ordinations, contribute to the development of quality child development centers. (Ministry of Labor, 2009) is in charge in many sectors in the area of custody of *the Local Government Organization*, number 758,435 centers throughout of Thailand, these children development centers must be evaluated with the standard of the Office for National Education Standards and Quality Assessment (MOE) to be used as a guideline for evaluating the performance of the center and as an instrument to improve the quality of the child center is assessed by the Office of National Education Standards and Quality Assessment and education standards for early childhood education of educational institutions under local government organizations, there are 754,424 centers of the CDCs are under the supervision of the Local Government Organization, Ministry of Interior (Department of Local

Thailand: Early Childhood Care and Education (ECCE) programs

The ECCD Programs for early childhood care and development with organized learning activities and two or more hours per day include nursery and daycare (public/private, age 0-2) and for above 3 years old children, child development center, kindergartens, and preschool classes (UNESCO Digital Library: Thailand, 2016).

Under-3-year-old children: National Institute for Child and Family Development also operates a daycare for research and development.

Age from 3 to 5-year-old children: The majority of child development centers are organized by SAOs throughout the country.

The Capacity of a Community Treasures (COACT) project for early childhood development

The purposes of the Capacity of a Community Treasures (COACT) Project for early childhood development is to enhance local communities' capacity to care for and develop early childhood by focusing on personnel development of the Child Development Center in caring for children aged 2-5 years to grow and develop properly, which results in a good level of intelligence.

Following this COACT project, the researcher team planned for supporting the health of children, youth and families of the Child Development Center (CDCE) into five target goals: Management system in the child development center; Environmental management system; System for organizing the learning experience management; Care system Health; and Family and community participation systems, a total of 52 process indicators and 30 results indicators in this research, which emphasis would be placed on physical environment management to enhance children's learning in the child development centers (Integration of aspects 2 and 3) to investigate the form of physical environment management of the CDCE to promote learning that is consistent with early childhood development was designed (Ministry of Education, 2015) (Figure 1).



Administration, 2018).

Figure 1. The COACT Project is supported the early childhood at the CDCs throughout of Thailand for relatively parents, teachers, nurses, UNICEF and Faculty of Nursing

Source: Available via licenses: Chiang Mai University and Khan Kaen University (2014)

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Size place area of suitability indoor environment for early childhood development

Generally, early childhood environments should be Rich in Experience, Rich in Play, Rich in Teaching, Rich with People. In order to investigate the potential for improvement of this kind of structures, the quality of architectonic design, which was the quality of organization and materialization of the designed physical environment of the CDCE premises correlates with the positive developmental results of the children (Stankovic et al, 2015).

Figure 2. Resurgence of indoor environment of preschool



building

Source: Available via Stankovic et al. (2015)

Figure 2 shows the photos for the size place area of the child development center, there is no fixed requirement. However, there are reports that determine the area within the classroom that is suitable for learning. The area suitable for the environmental management for a child should have an area of 2.0 square meters (Office of Academic and Educational Standards, 2006) 2.50 square meters (NZ Government, 2008) or the area of 2.90 square meters (OECD, 2011) and 3.25 square meters (Stankovic et al, 2015).

Size place area of suitability outdoor environment for early childhood development

There are many benefits to children and youth playing outside. In addition, children can experience the plants and animals in their local ecosystem, such as; Better physical health, Numerous opportunities to strengthen motor skills, Stress relief, greater visual-motor integration, greater creativity, Stronger verbal and social skills, Production of Vitamin D through exposure to sunlight, and Increased attention and cognitive abilities (Wells, 2000).

The standards for outdoor environments include: the outdoor space is suitable for a wide variety of activities, active and quiet, there are regular opportunities to participate in outdoor activities, children and youth can easily access a variety of outdoor equipment and games and any permanent equipment is suitable for the ages, sizes, and abilities of the children and youth in the program (Council on Accreditation, 2018). The CDCs can enhance the activities by bringing them outdoors and using natural elements to teach concepts by utilizing the CDCs outdoor environment (Walsh, 1993). The researcher team was interested in the area of learning inside and outside the classroom in all 15 centers for child development centers (Bureau of Academic and Educational Standards, 2016) (Figure 3).

Figure 3. Outdoor environment for developing child skills at some CDCs.



Source: PACIFIC News Center Available via (2015)

<https://www.thaihealth.or.th/Content/42616>

Therefore, the arrangement of the physical environment of the child center to enhance their learning by teachers must be arranged in accordance with 5 aspects of child development according to the Thai child development measures with a goal to develop children.

Methodology

In this study, the concept of the child learning experience was implemented according to the 2003 early childhood education program in the child development center. With the integration of 6 main activities: 1) movement and rhythm activities, 2) creative activities, 3) free activities, 4) experience activities, 5) outdoor activities, and 6) educational game activities

In organizing six main activities, this activity would be arranged in accordance with the development of Thai children. According to the 5 principles of surveillance and child development, including Movement development (GM), Child's muscle development and intelligence (FM), Language understanding (RL), Language development (EL), and Development of self-help and society (PS) to lead to success with the goal of managing the physical environment to enhance learning and conform to the development of early childhood development in the CDCs.

Research Questions

Three main areas were addressed, as illustrated through the research questions:

1. How much the size spacing area is suitable for enhancing the early childhood learning and in accordance with their leaning development with the framework of the COACT?
2. What are the proper forms of the model that is the physical environment of the indoor classroom at the CDCs in the framework of the COACT Learning Center that promotes learning and conforms to child development?
3. How are the outdoor environmental space areas of the class appropriate for the physical environment arrangement of the CDCs, whereas the learning centers with the COACT that promotes learning and conforms to child development?

Participants

Informants are 15 teachers of 15 learning CDCs that have the knowledge, understanding, and drive-in environmental and curriculum management systems for learning

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experiences through the training of the trainers and coaching of the COACT project (Figure 4).

Figure 4. Map of the five educational separation in Thailand



Source: Available via the Basic Educational Commission, Ministry of Education, Thailand (Thailand Vacation Rental Maps (2014))

Research instrument

Data collection with an open-ended questionnaire that the research team created, and then sent the questionnaire via email, quantitative data analysis with content analysis methods were analyzed.

The area of the PEM of the CDCs that have developed into the 15-learning learning centers spread across the country. There are the environmental space areas within the building whereas indoor environmental the classroom and the outdoor floors which are the outdoor field, found that all 15 centers, with the total area of one per a child, that ranged from 2.67:1 to 67.51:1 square meter as shown in Table 1.

Results and Discussions

Indoor area sizes of the learning CDC center

Table 1. Accounting the indoor learning CDC centers

Sizing area/child	Accounting the indoor learning CDC centers			
	1-CDC	2-CDCs	3-CDCs	4-CDCs
<2.0 m ²				√
2.0-4.0 m ²				√
4.1-6.0 m ²			√	
6.1-8.0 m ²		√		
>8.0 m ²		√		

In the area of the IED and OED areas, it was found that the CDCs had an outdoor area of 1.28 square meters per child, up to 67.24 square meters per child and the size of the classroom area within the classroom is between 0.96 square

meters: a child up to 8.47 square meters: a child when dividing the area group size per 1 child using 2.0 square meters (for The academic and educational standards, 2016) and found the child development centers as shown in Table

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1 and Figure 5.

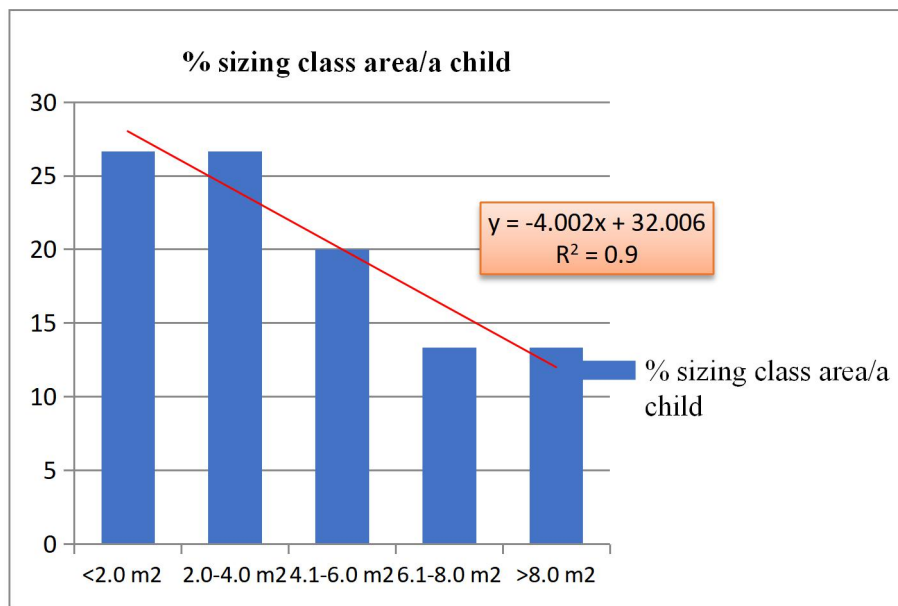


Figure 5. Comparisons between percentages of sizing class area/a child/m²
Sources: Available via the Researcher Team (2016)

The PEM model of the CDCs for enhancing early childhood learning of their consistency to their learning development

Integrating the environmental areas of the child development centers for enhancing early childhood development are designed according to 6 main activities, the learning center studied through the development of the design as following:

General area arrangement of the CDCs buildings

Each CDC has adapted the physical indoor environmental development model to have a cooling window that is not too solid to provide sufficient light inside the physical indoor environmental development model. Especially, in the PIED model with too small space area; opening the electrical fans is supported. Some centers have installed air conditioners to make children comfortable. Some centers have distinctive areas in the building for local cultural learning, such as; classrooms, libraries, open spaces, halls, offices, teachers, kitchens, dining rooms, bathrooms, toilets that brush their teeth, sinks according to learning the material in early childhood courses.

Table 2. Shows the results of activities within the classroom at the insufficient spaces for enhancing the DSPM

No. of the CDC	CDCs Name	DSPM					Total
		GM	FM	EL	RL	PS	
1.	Bonwowkoa CDC	✓	✓		✓	✓	1-2-4-5
2.	Wat Plubpla CDC	✓	✓	✓	✓	✓	1-2-3-4-5
3.	Jedee Maekrure CDC	✓	✓	✓	✓	✓	1-2-3-4-5
4.	Tha Chang CDC	✓	✓	✓	✓	✓	1-2-3-4-5
	Total	4	4	3	4	4	

How are the outdoor areas organized for the ECD in the CDCs?

The CDCs are some tips to create a space that engages children and encourages safe exploration:

1. Try a child's eye view: Get down to the children's height

The structural building for enhancing the physical environment management model of the CDCs

The CDCs would contain a variety of space types depending on the hours they are used, the age of the children attending, the number of children attending, and the setting for the center. Fundamental space types may include but are not limited, the following: Child-friendly classrooms; Meeting or community space for children and adults; Child-friendly and adult restrooms; Outdoor and indoor play areas; Office space for staff; Meeting space for adults; Clinic, and Foodservice space.

Early childhood's activities

Activities that would focus on children to practice based on 6 main activities and the opportunity for children to play freely is to play in various angles arranged in and outdoor physical environment. Such activities help promote child development according to the guidelines for surveillance and promotion of early childhood development with the DSPM in 5 areas as follows in Table 3 and Table 4.

and walk or crawl around the space.

2. Make sure the CDC space is child-safe: Whether you are in a childcare center or a family childcare home, make your space safe for children.
3. Arrange the CDC space wisely: Often the way you organize your childcare space can make a difference in

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how children behave.

4. Identify and cut off "runways.": Long, narrow spaces -- including open hallways and long aisles in the classroom encourage running.
5. Organize toys and supplies to make things easy for children: The CDC would have fewer problems if children can find toys and supplies.
6. Make sure there are enough toys: Problems often arise when children do not have enough toys or materials to play with.
7. Make sure the toys match the children's ages and abilities: Infants need toys that they can shake, drop,

mouth, roll, and otherwise explore with their bodies.

8. Teach children how to handle toys and materials: Explain and model how to carefully handle books, toys, and other materials.

The CDEs' activities organized of the physical outdoor environments in the CDCs would focus on activities that have developed large muscles, including exercise, playing field players, or playing games. In addition; teachers also organize extra-experience activities by bringing children to explore, observe, experiment, grow vegetables and reading storybooks at the pavilion, community learning resources, possibly (Table 3).

Table 3. Shows the results of the sufficient outdoor physical environmental space area for enhancing the DSPM for the CDCs

No. of the CDC	CDCs Name	DSPM					Total
		GM	FM	EL	RL	PS	
1.	Wat Promwihan CDC	√	√	√	√	√	1-2-3-4-5
2.	Wangphang CDC	√	√	√	√	√	1-2-3-4-5
3.	Nakeaw CDC			√	√	√	3-4-5
4.	Lalom CDC	√	√	√	√	√	1-2-3-4-5
5.	Sawankhalok CDC	√	√	√	√	√	1-2-3-4-5
6.	Ratchakram CDC	√	√	√	√	√	1-2-3-4-5
7.	Nongkoa CDC	√	√	√	√	√	1-2-3-4-5
8.	Dong Yai CDC	√	√	√	√	√	1-2-3-4-5
9.	Jampamong CDC	√	√	√	√	√	1-2-3-4-5
10.	Koa Chaison CDC	√	√	√	√	√	1-2-3-4-5
11.	Choeng Thale, CDC	√	√	√	√	√	1-2-3-4-5
	Total	10	10	11	11	11	

Table 4 reported the CDCs with insufficient space outside the building; however the outdoor physical environment was organized as follows: To provide a multi-purpose yard

that can be used for a variety of activities, such as respecting national flags, movements, and rhythms and games; to provide a pavilion for community learning resources.

Table 4. Shows the results of outdoor insufficient physical environmental space area for enhancing the DSPM

No. of the CDC	CDCs Name	DSPM					Total
		GM	FM	EL	RL	PS	
1.	Bonwowkoa CDC	√	√	√	√	√	1-2-3-4-5
	Total	1	1	1	1	1	1-2-3-4-5

Table 5 reported the activities organized outside the POED would focus on activities that have developed large muscles including exercise, playing field players, playing games. In

addition, teachers also organize extra-experience activities outside the school building via bringing children to explore, observe, experiment, grow vegetables and reading storybooks at the pavilion, community learning resources.

Table 5. Shows the results of the sufficient outdoor physical environmental space areas for enhancing the DSPM for the CDCs

No. of the CDC	CDCs Name	DSPM					Total
		GM	FM	EL	RL	PS	
1.	Wat Plubpla CDC	√	√	√	√	√	1-2-3-4-5
2.	Jedee Maekrur CDC	√	√	√	√	√	1-2-3-4-5
3.	Tha Chang CDC	√	√	√	√	√	1-2-3-4-5
4.	Wat Promwihan CDC	√	√	√	√	√	1-2-3-4-5
5.	Wangphang CDC	√	√	√	√	√	1-2-3-4-5
6.	Nakeaw CDC	√	√			√	1-2-5
7.	Lalom CDC	√	√	√	√	√	1-2-3-4-5

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8.	Sawankhalok Prachasan CDC	√	√	√	√	√	1-2-3-4-5
9.	Ratchakram CDC	√	√	√	√	√	1-2-3-4-5
10.	Nongkoa CDC	√	√	√	√	√	1-2-3-4-5
11.	Dong Yai CDC	√	√	√	√	√	1-2-3-4-5
12.	Ban Jampamong CDC	√	√	√	√	√	1-2-3-4-5
13.	Koa Chaison CDC	√	√	√	√	√	1-2-3-4-5
14.	Choeng Thale CDC	√			√	√	1-4-5
	Total	14	13	12	13	11	

In the 15-CDCs, whereas it is also important to include equipment that would help children and youth work on their gross-motor skills to involve large muscle movements of the body and include running, jumping, throwing, and maintaining balance. Fixed playground equipment is not

necessary for children and youth to experience high levels of physical activity outside. In fact, children are often most physically active when they play with portable equipment such as balls, bicycles, Hula-hoops, and so on (Figure 6).

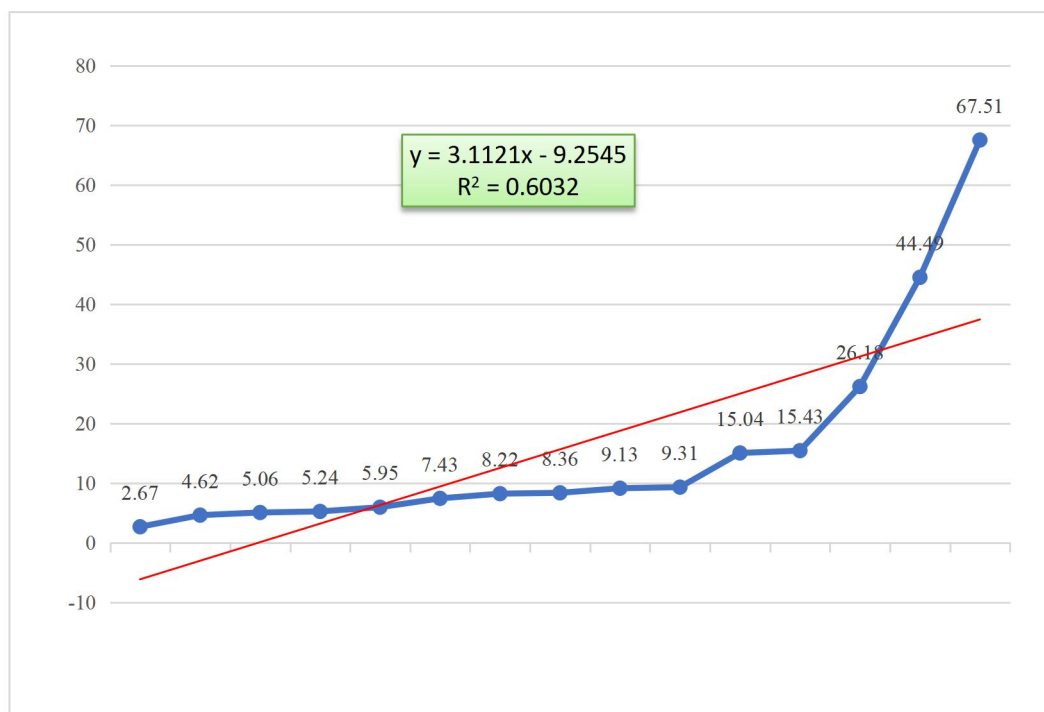


Figure 6. The graphic of the total area size of the 15 learning CDC centers by total area (square meters per 1 child)
Source: Available via the Researcher Team (2016)

The CDCs in Thailand for environmental education management through their National Project for excellence in environmental education, frequent opportunities to explore, observe, and play in natural environments is a cornerstone of excellence in early childhood environmental education. Results are compared with pre-service early childhood educators' responses from prior research, as well as with research-based characteristics of natural settings conducive to quality play.

The CDCs are divided the physical indoor classroom space into 3 parts: the personal storage space for teachers and children; experience area and free angles, and also, provide space for children to play or do activities physical outdoor environment whereas outside the classroom which corresponds to play and exploration in nature are well aligned with early childhood pedagogy (Wilson, 2012). Play is a fundamental avenue for early childhood learning and

well-acknowledged within early childhood education as the primary way of meeting children's development requirements (Armstrong, 2006).

In order to create a pleasant atmosphere, those children are in a classroom with insufficient space would affect behavior causing children to have aggressive behavior (Destructive behavior) but the congestion of that room will give children the opportunity to play more creative. Therefore, the teacher plays an important role in the design of the classroom and the activities that are organized in the classroom, let children play more creative than destroy (Almon, 2013).

This also suggests a need for park/land managers to consider using some of their natural settings as places where unstructured play is not only allowed but also encouraged (Davies, 1996). Further, the environment is designed to enable staff to facilitate optimum learning for

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their children. Especially, the environment makes parents and guardians feel welcome, involved, and empowered of their activities for children must support children, warm, let children learn to respond and have relationships with their teachers and parents, places and environments to children who have developed their skills in the 15-CDCs with the researcher team is provided, significantly.

In order for parents, guardians, children, and teachers to use, guidelines for child-rearing and to provide educational institutions and early childhood development centers in all areas related issues can be used as guidelines for effective education management and as the same standard and to create. to encourage early childhood to grow, with every aspect of development, balanced, suitable for ages, being good people, happy people, and grow to be a good, good quality. Ministry of Education hopes that this formula will be a guide in good parenting and early childhood education for those involved and can be used the experience to children correctly according to the principles of early childhood education Consistent with local conditions. That is about the children set in the curriculum.

Conclusion

This research design as followed the standards for the operation of the Child Development Centers (CDCs) of the Local Government Organizations (LGO) which the organization LGO will be used as a guideline for operation of the CDCs to be systematic and standardized, and to have quality according to academic principles So that the CDCs of the LGOs can promote and develop early childhood in the local area to have complete development according to the

Figure 7. The graphic of the total area size of the 15 learning CDC centers by total area (square meters per 1 child)

Source: Available via the Researcher Team (2016)

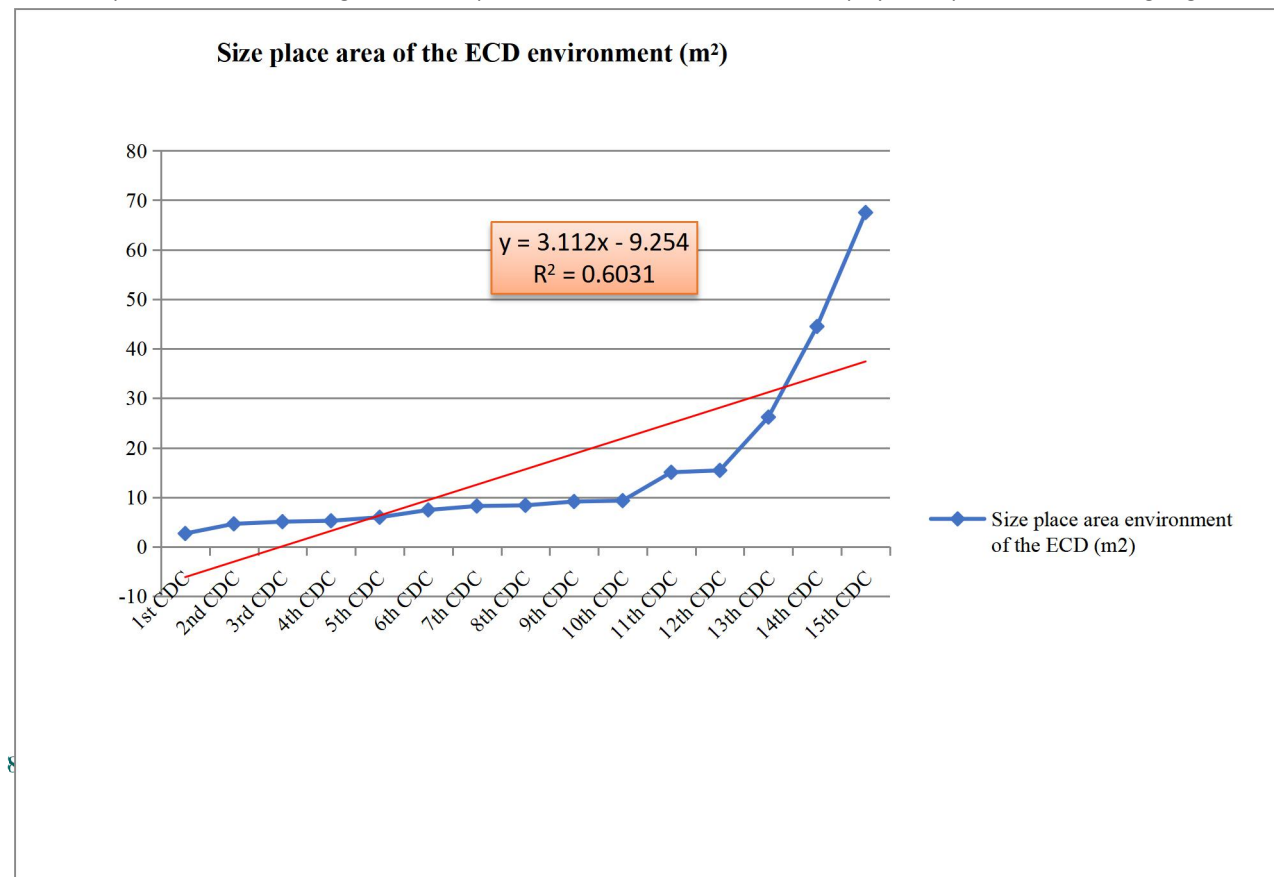
According to studies, it has been found that Child Development Center, the Wang Phang Municipality has the most space with an area of 218 square meters, an average of 2.22 square meters per person and has the outdoor area of 6,590 square meters, an average of 67.24 square meters

age of all 4 aspects including physical aspects, emotional, social and intellectual aspects, and to have the readiness to study at the basic education level in the globalization century in six main standards; Standard 1: Management of child development centers; Standard 2: For personnel; Standard 3: The Building, Environment, and Safety of Child Development Center; Standard 4: Academic and Activity-based on curriculum; Standard 5: Participation and support; and Standard 6: Promotion of early childhood development networks are assessed of the purposes of this research study. The primary data focused on the teachers who have spent time taking care of each child's strengths and abilities as their works to make modifications and adjustments at the 15-CDCS as the target sample group with the qualitative data method in this research is provided.

How much the size spacing area is suitable for enhancing early childhood learning and in accordance with their leaning development with the framework of the COACT?

To observe and interview for general modifications to accommodate children with special needs in the CDCs whereas focused on the physical environment management model whereas the child development centers for enhancing early childhood development to their learning consonances. Accounting the CDCs with insufficient indoor space has a total of 4 centers (27%) and the CDCs have enough space of 11 centers (73%), the CDC with insufficient outdoor space is 1 center, representing the 14 centers are sufficient space environmental areas have the proportions of overall area size. The least is 2.67 square meters and the highest is 67.51 square meters.

per child. However, all of the CDCs both with enough space and not enough can arrange activities according to DSPM (Developmental Surveillance and Promotion Manual) due to the dominant teaching the behavior of teachers. Teachers are those who play an important role in designing activities



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and providing an environment that promotes learning for children which doesn't have much space or less space.s

Allowing children to choose to play freely by using both indoor and outdoor physical environment development spaces in organizing activities which correspond in the CDCs on each day with the integration of 6 main activities: 1) movement and rhythm activities 2) creative activities 3) Free activities 4) Experience activities 5) Outdoor activities and 6) Educational game activities in organizing 6 main activities, this activity will be arranged in accordance with the development of Thai children. According to the 5 principles of surveillance and child development, including 1) Movement development (GM) 2) Small muscle development and intelligence (FM) 3) Language understanding (RL) 4) Language development (EL) and 5) the development of self-help and society (PS) to lead to success with the goal of managing the physical environment to promote learning and conform to With the development of early childhood development in small child development centers. The operations of the CDCs are consistent with the policy of the Department of Local Administration, significantly.

What are the proper forms of the model that is the physical environment of the indoor classroom at the CDCs in the framework of the COACT Learning Center that promotes learning and conforms to a child development?

Environment plays a critical role in the development of children and it represents the sum total of physical and psychological stimulations the child receives. Some of the environmental factors influencing early childhood development involve the physical surroundings, geographical conditions, social environment, and relationships with family and peers. It is observable that a well-nurtured child does better than a deprived one and the environment they are constantly immersed in contributes to this. A good CDC and loving family builds in them strong social and interpersonal skills while excelling in other areas such as academics and extracurricular activities. It is different for children who are raised in stressful environments such as poverty and broken families.

How are the outdoor environmental space areas of the class appropriate for the physical environment arrangement of the CDCs, whereas the learning centers with the COACT that promotes learning and conforms to child development?

The purpose of an outdoor environment is to encourage children to be active, to give them a break from being indoors, and to support learning in a variety of environments. Early childhood environments: safe, responsive, and nurturing environments are an important part of supporting the learning and development of infants, toddlers, and preschoolers. Environmental practices refer to aspects of the space, materials, equipment, routines, and activities that practitioners and families can intentionally alter to support each child's learning across developmental domains at the physical outdoor environment. To maintain an outdoor learning environment that is safe and organized with designated areas for various types of play and learning is designed in the CDCs.

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