**Dek Noi Pattana FOUNDATION**
มูลนิธิเด็กน้อยพัฒนา

# Assessments and developing age-specific competencies for Early Childhood

# (children 2-3 year-old) Report

# August 2021

Report on EC assessments and age-specific competency development (children 2-3 year-old) in Donraed and Salakdai ECD centers

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Early childhood is the most important stage for growth in human development. It provides a strong base for lifelong learning and learning abilities in all areas including physical, social, literal, moral and creative skills. These skills are best developed during early childhood years and are the foundation for one's future development. Thailand understands the importance of ECD as defined in the 2019 national Act, the National Strategy Master Plan under The Twelfth National Economic and Social Plan, National Reform Plan and public policies. The ECD goals and guidelines have been passed down and implemented by related departments.

Every young child must receive a high-quality education. Teachers and caretakers need to be well educated and skilled in childcare procedures and can facilitate activities that are consistent with holistic ECD guidelines according to their age. Education centers must provide activities that are consistent with the Early Childhood curriculum and EC competencies that match the additional ASEAN standards. In addition, local administration office can implement ECD education locally to their full capacity following the national policy. Particularly the goals in the Economic and Social development plan that have been integrated into policy packages and ensures effective outcomes when they are implemented. High-quality ECD centers have effective training systems continuously put in place for teachers and caretakers as well as continuous coaching and mentoring systems.

DNPF works on developing the center into a high-quality learning center and develops monitoring mechanisms while also considering implementing guidelines. Additionally, DNPF develops guidelines for teachers to observe children's competencies in a systematic manner. This is because competencies are individualized guidelines with complete details for ECD following accurate principles.

The meaning of competencies

Competencies are actions or behaviors that are age-specific and cover many areas of a child's development. In other words, observing and measuring what the child can do considering their nature in a holistic view. Consequently, competencies must be considered in child development for children to develop and can perform things by a certain age. Competencies in each development area can be evaluated through the children's behaviors in each development stage. Therefore, the competencies can serve as a guide in identifying what behaviors each age group should be demonstrating. In the case where a child hasn't yet demonstrated skills of one of the competencies, teachers, parents and guardians can identify what activities are needed to support the child's development. They can also measure the impact it has on the child and use them as goals to guide inputs and procedures to lead to achievements.

Competency is the blend of knowledge, skill, attitudes, attributes and other abilities that helps children be successful and find their potential. It is an ability hidden within themselves. Every child has potential in one or many areas that are not yet manifested until they are stimulated or given the support or knowledge they need. When their potential emerges and if they are given continually supported, their skills will advance.

Competencies are indicators that point to children's behaviors in each stage. They indicate what children can do and they are used as tools to help teachers and parents to know what abilities children should be able to do at each age. The main objectives of competencies are to utilize the collected data in building and supporting the children's development. Teachers shouldn't use the results to judge a child when they can or can't do something. They may use them in cognitive development activities in daily life with children to give Thai children the quality they need.

The importance of competencies

Competencies are important for children to develop to their full potential, and they help adults understand children and the proper ways to care for children during each stage.

Child development is very important and critical both for cognitive development and for building a strong foundation for development in all areas. Research has supported that EC has the highest rate of brain growth and is an essential base for development in every stage. Furthermore, researchers endorse that the environment and proper upbringing can change the development course and support brain function. Therefore, if a child is provided good care following psychologic and academic principles, they will develop their skills to their full potential.

Foreign research reveals that a society that invest in ECD will have a worthwhile reward in return. Also, if a child receives proper age-appropriate care, when they are older they will become a vital asset of the nation. They will not cause social problems such as drugs, crime, violence, etc. Research from many agencies have confirmed how worthwhile EC investment is economically and how critical investment needs to be done as soon as possible such as the High/scope project in 1962 in Michigan that showed investing in children resulted in the society gaining 17 times in return.

Therefore, child competencies in age-based developments are critical and the answers for ECD which many countries have accepted and shown interest in. It has made them realize the importance for supporting children to reach their full potential and help adults understand children and understand how best to care for them. EC experts and organizations involved in ECD are increasingly showing interest in competencies and behavioral indicators. This is partly because they recognize the importance of ECD and partly because of the increase of detailed academic research in this topic and area. Additionally, parents, caregivers, and teachers benefit from the competency results and understand how best to support children's development. They can use the competency results as guidelines for caring and supporting children effectively.

The children's holistic development including their ability to move, their physical health, their social, emotional, cognitive, intellectual, language, moral, and creative skills are competency indicators. Parents, teachers, caretakers must create measures to support children's development of competency skills that collate with their age and nature naturally.

Competencies for ECD

**The ECD competencies for 2-year-old has 4 domains including:**

**Domain 1**: Motor Development and Physical Well-Being. There are 3 sub-domains in this domain including 1.1. Gross Motor, indicators of progress in gross motor development include walking, running, jumping, stopping, walking upstairs, throwing balls, and riding bikes, etc.; 1.2. Fine motor includes drawing a line with dominate hand, moving thumbs up and down, etc. and; 1.3 Personal care includes being vocal when they need to use the bathroom, putting on clothes, washing hands, brushing teeth, turning on the faucet, etc.

**Domain 2**: Perception and Learning Development includes being able to sing, build blocks, pair items (colors, shapes, pictures), draw, understand reasoning, list events in chronological order, understand distance (near and far), imitate drawings (vertical lines, circles, crosses), pair colors with items, take items from command, put together picture etc.

**Domain 3**: Language Development and Comprehension includes naming items, body parts, feeling, utilities, naming primary colors, imitating sounds, answering short questions after listening to a story, showing interest in books, observing and asking 'why' questions etc.

**Domain 4** Emotional and Social Development includes parting form their parent without crying, being vocal about their needs, imitating adults, showing ownership with their belongings, talking to familiar people, being patient, able to identify their gender, able to talk about their experience, etc.

**The ECD competencies for 3-year-old has 7 domains including:**

**Domain 1**: Motor Development has 2 Sub – domains. Motor Skill Development and Physical Well-Being which includes the following areas: gross motor skills, fine motor skills and, sensorimotor skills. The second sub-domain, physical well-being, addresses nutrition, physical fitness, safety and, autonomy and personal care.

**Domain 2**: Social Development has 4 sub-domains which include Interaction with Adults, Interaction with peers, adaptive social behavior where children demonstrate awareness of their behavior and its effect on other people and, appreciating diversity.

**Domain 3**: Emotional Development has 3 sub-domains including self-concept which involves their ability to perceive themselves, emotional self-control which involves their ability to follow rules and control their emotions to a level and, self-efficacy which involves recognizing their abilities.

**Domain 4**: Cognitive Development has 10 sub-domains including memory, basic concept formation, logic and reasoning, critical thinking, concentration, mathematics, sciences, social studies, pollution and environmental preservations and, economic value.

**Domain 5**: Language Development has 3 sub-domains including language development which involves vocabulary, syntax and grammar, and comprehension; communications which involves verbal and non-verbal communication and; literacy.

**Domain 6**: Moral Development has 2 sub-domains which are self-discipline and moral development.

**Domain 7**: Creative Development has 2 sub-domains which are performing arts and visual arts.

Results

Tables 1 and 2 document the development of the children's skills between the first and the second semesters of the 2020 school year (from November 2019 – March 2020) in 10 ECD centers that have received in-service training as well as coaching support from DNPF. This support has included how to observe and document the development of children's skills.

Table 1 Comparison of the children's skills (2-years-old) of the 10 ECD centers in the 1st semester and in 2nd semester of the 2020/21 school year (percent of children able to independently perform skills)

| ECD centers | Competencies for children 2-year-old | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Domain 1 | | Domain 2 | | Domain 3 | | Domain 4 | |
| | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 |
| Average results for all centers | 49 | 89 | 26 | 73 | 44 | 79 | 49 | 82 |
| Range of results across centers | 37-78 | 85-95 | 11-50 | 55-82 | 19-68 | 61-90 | 32-57 | 67-96 |

From Table 1, it was found that in the first semester, children demonstrated skills in Domain 4 (Emotional and Social Development) the most with an average of 49% followed by Domain 1 (Motor Development and Physical Well-Being) also with an average of 49% and Domain 3 (Language Development and Comprehension) with an average of 44%. The children struggled most with Domain 2 (Perception and Learning Development) with only an average of 26% able to perform the skills. There was also a wide variation in results across centers from at the lowest end only 11% of children

in one particular center being able to perform skills in Domain 2 to at the highest end as many as 78% of children in one particular center being able to perform skills in Domain 1.

In the second semester, the skills that the children demonstrated the most were in Domain 1 (Motor Development and Physical Well-Being) with an average of 89% followed by Domain 4 (Emotional and Social Development) with an average of 82% and Domain 3 (Language Development and Comprehension) with an average of 79%. The skills that the children demonstrated least were Domain 2 (Perception and Learning Development) with an average of 73%. In addition to the substantial improvement in skills across all domains between the first and second semesters it is also noticeable that the extent of differences in results across centers decreased significantly between the first and second semesters.  In the second semester and at the lowest end 55% of children in one center were able to perform skills in Domain 2 and all at the highest end, 96% of children were able to perform skills in Domain 4.

Table 2 Comparison of the children 's skills (3-years-old) in the 10 centers in the first semester and in the 2<sup>nd</sup> semester of the 2020/21 school year (percent of children able to independently perform skills)

| ECD center | Competencies for 3-year-old children | | | | | | | | | | | | | |
| | Domain 1 | | Domain 2 | | Domain 3 | | Domain 4 | | Domain 5 | | Domain 6 | | Domain 7 | |
| | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 | Before Nov 2020 | After Mar 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average results for all centers | 75 | 92 | 73 | 93 | 74 | 95 | 61 | 90 | 68 | 93 | 73 | 92 | 75 | 96 |
| Range of results across centers | 60-83 | 84-99 | 52-92 | 84-89 | 63-90 | 85-99 | 44-82 | 77-99 | 47-80 | 77 -99 | 45-83 | 79-100 | 62-84 | 84-100 |

From Table 2, it was found that in the first semester, children demonstrated skills in Domain 1 (Motor Development and Physical Well-Being) and Domain 7 (Creative Development) the most with an average of 75% followed by Domain 3 (Language Development and Comprehension) with an average of 74% and Domain 6 (Moral Development) with an average of 73%. The children struggled most with Domain 4 (Cognitive Development) with an average of 61%. There was also a significant variation in results across centers with at the lowest end 43% of children in one center being able to perform skills in domain 5 and at the highest end 84% of children in one center being able to perform skills in domain 7.

In the second semester, the skills that the children demonstrated the most were in Domain 7 (Creative Development) with an average of 96% followed by Domain 3 (Language Development and Comprehension) with an average of 95% and Domain 2 (Social Development) with an average of 93%. The Domain in which the children demonstrated least was Domain 4 (Cognitive Development) but still with an average of 90%. In addition to the significant improvement in skills across all domains between the first and the second semesters, there was also a decrease in the variation in results across centers. In the second semester and at the lowest end 74% of children in one center were able to perform skills in domain 6 while at the highest end 100% of children in one center were able to perform skills in domain 6 and in another center 100% of children were able to perform skills in domain 7. It is also noticeable that at the end of the second semester the overall results for 3 years old are significantly better that for 2 years old. This is most likely to be further indication of the value added of the training and coaching that the teachers and caretakers have been receiving,

Recommendations

After the test run of the competencies for observing and developing the children's skills in Salakdai and Donread, the DNPF team recommendations for utilizing the competencies in the ECD centers and classroom as follows:

1. Information about EC competencies should be communicated to teachers as well as the importance and significance of competencies in ECD so teachers understand their value.

2. Teachers should use behavior indicators and design special activities and/or include the indicators in the daily activities.

3. As part of their lesson plan, teachers should also include a detailed plan on how they are going to utilize the indicators in their activities.

4. Teachers must observe and take notes before and after lessons following each indicator and observing whether they are able or unable to perform and the timing in which they are able to.

5. ECD centers should inform parents about the activities that help support competency development which can be used at home as well as at school.

6. Each activity following the lesson plan must be documented by taking photographs. Teachers must continuously record their observations following each indicator and the children's projects must also be kept.

7. Teachers and caretakers should share their competency results of each center in their group every month to revise and exchange techniques on building competency skills, engaging with parents, and doing research in the classroom.

8. Teachers must record behavioral observations and the results of competency assessments for both before and after lessons and at the end of each semester. There should also be a meeting to summarize their performance and a report should be given to the center's education committee.

Policy Recommendations

1. Overhead organizations that oversee the center's management should understand the importance of policy implementation. They should also support the use of the competency guidelines for 0-3-year-old and 3-5-year-old in ECD centers. These guidelines will be used to help children develop their physical, emotional, social, and cognitive skills.

2. ECD centers should use the domains and sub-domains in the competency guidelines for ECD for 0-3-year-old and 3-5-year-old in the curriculum and assure that lessons and activities are consistent with the indicators in the guidelines.

3. Education institutions should encourage the participation of parents in ECD by spreading awareness about the importance of ECD and the various competencies to support participation and sustainable development.

4. Overhead organizations should implement policies for teachers to research EC competencies and have it be a part of lesson planning and the ECD plan.

5. Overhead organizations should implement policies to develop schools/centers as learning communities and networks that work together to develop competencies for ECD.

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Pictures of the ECD competency assessments in Wat Khamsi BanBueng ECD center



Joining the activities with other classmates



Children feeding themselves without spilling



Joining the activities with other classmates



Eating food with all 5 essential nutrients

Wat Mai Ban Yang ECD center



Running in a straight line



Jumping on one leg



Running in a Zigzag line



Crawling under tunnels

Wat Thung Sawang Si Arom ECD center





Preparing to bend knees and jump to the last staircase        Running in a Zigzag line





Building items into shapes                                    Tossing a ball in front and aiming for a target

Nongtaw BuaSeaw ECD center



Walking and running in a circle



Crawling under tunnels



Throwing a ball in front to a target



Categorizing items

Catching a ball with an 8-inch diameter



Building items into shapes



Walking and running in circles



Pouring milk without spilling

Nong Hin ECD center



Walking and running in circles



Building items into shapes



Using small dull scissors to cut paper



Eating food with all 5 essential nutrients

Salakdai ECD center



Following the circle on the ground



Standing on one leg without falling



Running with good balance



telling the color and category of items

Holding a cup of water without spilling          joining activities with others





Jumping over obstacles          Bending knees and jumping to the last staircase