

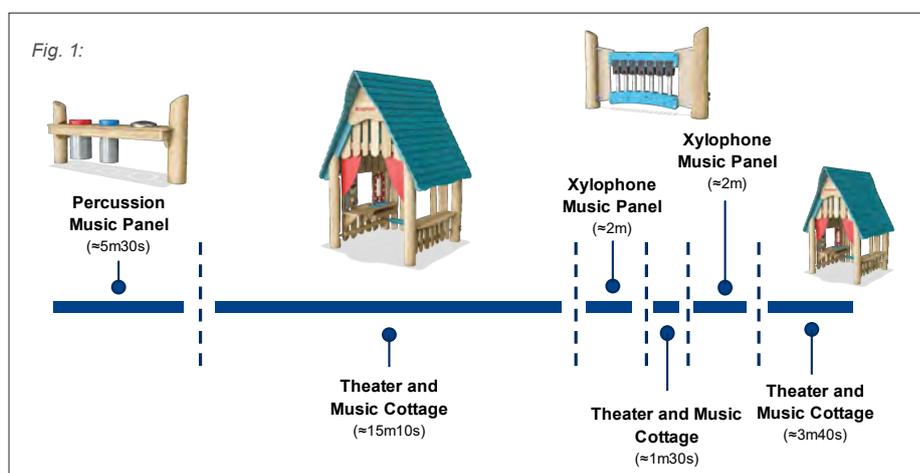


PLAY VALUE INCREASES WITH SENSORY PLAY FEATURES



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Use it or lose it! That is the rule of brain development in early childhood. Toddlers learn and develop in outdoor play. But what is the right play stimulation when? There are age appropriate windows for learning, and children should not be over-challenged or under-stimulated¹. Newer research projects in early childhood play indicate imaginative and pretend play in infants, earlier than what textbooks generally hold true². The research suggests that Theory of Mind³, and thus the emerging ability to participate in group and pretend games, occurs earlier than what has been commonly held. In observations made of the KOMPAN ROBINIA Theatre and Music Cottage, this was confirmed.



5 Main findings

- The toddlers played for 30 minutes in and around the Theatre and Music Cottage, Fig. 1
- Group Dramatic play and active language took up nearly 25% of the play time, Fig. 2
- 92% of the time was in non-sedentary play, Fig. 2, and 9% were physical activity, climbing over a desk from the inside to the outside of the house, looping around it and repeating, Fig. 3
- 1-year-olds did dramatic play with imaginary props, (e.g. stone as money, sand as icecream)
- Tactile, visual, auditive and manipulative details in the playhouse encouraged explorative individual and group play behaviors.

Play duration higher than expected in toddlers

The children aged 1 to 2 years played for 30 minutes, in and around the Music and Theatre Cottage. This is a surprisingly long time to stay focused around one piece of play equipment for infants. It may be partly explained by the teacher's informal presence, however, the children played freely and thus chose their location.

Two play groups were observed: one of 1 to 2-year-olds and one of 3 to 4-year-olds. The 3 to 4-year-olds behaved much as expected, with elaborate dramatic and explorative group games, concentrating on playing shop or theatre.

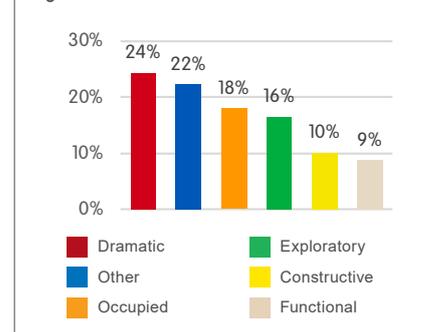
Elaborate play explorations

The 3 to 4-year-olds were monitored in a 13 minutes' play session. Their play also centered around the house. They used the dramatic, tactile, auditive and visual play features intensively, too. Their dramatic play was more elaborate, and they sourced materials for their ice-cream selling game from the surroundings (sand, dirt). They utilized the surrounding play items, for instance the Theatre Stage, to a larger extent.

Much earlier pretend play understanding

Toddlers from 16 months and up to 30 months played group dramatic games, selling and buying ice cream. The observations and video recordings visibly show that the 16-month-olds understand and participate in make-believe exchanges of money (stone collected as prop), beverages and ice-cream. Part of their explorative game is finding props (stones, sand, grass) to keep the pretend play going. These pretend play acts are scientifically documented to strengthen domains such as language, emotions and empathy⁴.

Fig. 2:



Tactile, themed play features prolong play attention

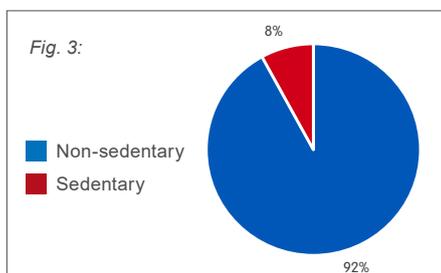
When not playing pretend play, the play in the Music and Theatre Cottage centered around the various tactile, manipulative, auditive and visual play features. The blue, horizontal rubber flaps that cover holes in the desk allow for passing items onto the shelf underneath. This is a fascinating game of object permanence understanding for the youngest: that things disappeared through holes under flaps in the desk but then re-occurred on the shelf underneath the desk. This peek-a-boo effect thrills young children.

The mirror gained attention, with toddlers vehemently reacting when recognizing themselves in the mirror image. The clock, bell and the Music Panel and Drum Panel are main attractions, too. These break-out spaces allow the toddlers to stay close to and follow group play and jump back in at their convenience.



Physical activity

92% of the play in and around the cottage is non-sedentary. The side of the Theatre and Music Cottage with no tactile elements, merely a desk, the 2-year-olds used for taking loops crawling over, jumping down, stretching their arms up, saying "Hey", "Look at me", and "I did it", running into the house and repeating. This game involved only the 2-year-olds and was completely self-initiated.



5 Design considerations for group and pretend play in toddlers

Based on these observations, we have five design considerations for toddler playgrounds for pretend and social play stimulation:

1. Right ergonomic measures for toddlers. Make sure that they can reach, manipulate, look over or into items such as mirrors.
2. Rich tactile and manipulative items for exploration and pretend play. Vary materials and functionalities in play features, e.g. soft and hard materials, movable and stationary items.
3. Themes that toddlers recognize (e.g. house, window, mirror, watch, desk, curtain).
4. Open, ground level based units mean play from outside also.
5. Sectioned functionalities in units: sides with or without play features etc. make for varied play opportunities and more groups playing each their game simultaneously.

Conclusion

This study has found that toddlers' play, especially their socio-dramatic play, contains so much more than what meets the eye. They play more elaborately than what has been previously thought². The Theatre and Music Cottage stimulated, apart from parallel play, also more elaborate cognitive play types, with more participants.

In the Theatre and Music Cottage, what worked for the toddlers was the combination of

1. rich sensory and manipulative items (music panel, drums, rubber flaps) that support exploration and increase play duration.
2. a stimulating framework, with age appropriate ergonomic scale and rich sensory stimulation.
3. both group and parallel play motivation, which worked from the age of 16 months.
4. non-sedentary activity proportions that encouraged more physical activity in pretend play (height of desks, tactile elements etc.).
5. attentive, but informal, teacher support.
6. pretend play motivators (desks, mirror, clock etc.) that stimulated communication and language from 16 months.



Observations took place at Fraugde Nursery and Kindergarten, Denmark, in June, July and August 2018



8 children were observed in two groups:
1 to 2-year-olds: 4 children
3 to 4-year-olds: 4 children



43 minutes in-depth observations:
1 to 2-year-olds: 30 min.
3 to 4-year-olds: 13 min.



Analysis tools:
*Play Observation Scale*⁵
and *BORIS*⁶



References

- ¹ E.g. the English Early Years Foundation Stage recommendations base their recommendations on this.
- ² E.g. Child Development, 9th edition, Pearson, prof. Laura E. Berk, Illinois State University.
- ³ Theory of Mind, the ability to understand that others may have different wishes than you. Generally held to occur around the age of 2 years.
- ⁴ LiLillard, A. S., Lerner, M. D., Hopkins, E. J., Dore, R. A., Smith, E. D., & Palmquist, C. M. (2013). The impact of pretend play on children's development: A review of the evidence. *Psychological bulletin*, 139(1), 1.
- ⁵ Kenneth H. Rubin, Dept. for Human Development and Quantitative Methodology, University of Maryland, developed a Play Observation Scale tool to observe children's social-emotional and cognitive play behaviors.
- ⁶ For registering and coding the play behaviors and quantifying them, the Behavioral Observation Research Interactive Software of the Università degli Studi Di Torino was used (<http://www.boris.unito.it/>)



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