## Exploring Conceptual Play Furniture For Children

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Abstract: This study conducted to investigate play furniture for children. There is various type of furniture for children but not all are suitable for children. Play is necessary for every children childhood. A play furniture design for children must be impact resistance, durable, safety and smooth materials. Play as progress concerns the belief that the purpose of play is to learn something useful. Play is a means to improve or enable psychological or social needs. The objectives are to identify the type of play furniture, analyse which type of play furniture is suitable for children and to design a conceptual play furniture for children at home. The anthropometric data will help on full-scale dimensions for designing an ergonomics play furniture for children. The implementation data will help in designing a comfortable, safety, ergonomic and good sitting posture for children. Furthermore, exploration on the height of Asian children and also materials used. The research approach used in this study are quantitative and qualitative. There were randomly 59 samples of parents to do a survey about the design and features of play furniture and 17 children age between 4 to 6 years old to choose their preferred colour as a guideline on the designed children play furniture. The result of the average children 4 to 6 years old height is 93cm-114cm for girls and 95cm-116cm for boys. In total 37.3% of parents select a minimalist concept and 76.4% prefer organic shape. The highest percentage for the size of children play furniture was medium size which affordable for 2 children used.

Keywords: Play furniture, Children, Ergonomic, Conceptual.

## 1 INTRODUCTION

According to (Rieber, June 1996) current theories of play are generally organized around four themes: play as progress, play as power, and play as fantasy. Children can develop cognitive skills, self-confidence, and their social skills through playing. Play has the paradoxical cause on enhancing attention and become better on thinking and problem-solving. Kindergarten teacher plays an important role as an instructor where self-learning is an important ability. It is an important step for children age between 4 to 6 years old to develop self-learning (Franziska Perels, 2009). Children must know how to organize their knowledge and also able to accord on the learning problem. Selfregulation also an important aspect for effective learning because of the relevance of competence for learning and academic achievement which are demonstrated by children (M-M, 2007). Parents should understand the meaning of children's play will increase the sensitivity and know the basic of emotional grow of children and also understand the needs of children having time for experiences by themselves. Children can express their expression in many ways through play such as running, jumping, drawing, and painting. This will help them in managing their expression now and in the future. Play is one of the ways for children to learn their abilities and master the experiences that are important for building resilience and developing (Lieberman, n.d.). Children can boost their brain development and growth through playing and in a sense makes them more intelligent (Goldstein, 2012). A well-design furniture can promote children's growth with their feet touching the floor, children can seat themselves and there is a back to lean on. A place where having child-size furniture at children learning environment can give them more access to learn on materials and also given more chance to explore their environment. According to Shetty (1987), a key element for better company competitiveness is to produce a high product quality and added value for customers. Furniture in good designed can reach children's attention and help to explore the endless desires. Children with good posture are good for the overall health and mood, not only good for the health of our spine. The more the neck bend downward, the more the stress on the cervical spine. A poor posture might compress the diaphragm which will affect children voice quality and breathing. The number of children who have poor posture has rapidly increase said Jacqueline

(2018). The number of children went to see her for spinal problems and muscle problems had typically increased. Children are overwhelmed with electronic device but aren't being taught good posture when utilizing them and they will spend excess time on it. According to Chrisp (2015), children always move around because the traditional chair lacks the flexibility of sitting. Children naturally elongate the spine when they first learn to sit where the position requires least muscle strength and boost the most support from the skeletal system. A soft furnishing on furniture also important because having something soft to fall on will give them feel confident in getting up and trying again without helps from adults (Kaplan Early Learning Company, 2014). Ergonomic is importance on designing furniture for children. According to Linton (1994), ways to motivate children to sit properly is to have comfort furniture. There are 30 to 65% of children and adolescents reported having neck and headache pain. Besides creating an object for children, extended life cycle also about the product's long-lasting performance. The bond between furniture and user is seen when a precondition for products' sustainability and designing a pleasurable product (Salvador, 2015). A slope at the backward of furniture can help the body keep in a certain position with the backrest. (Adawiyah, n.d.) said that it is different from children ergonomic and adult ergonomic so the furniture design for children should be focusing on prevent injuries or hazard to them. According to (Ruth, 2000) had made a design standard for children which include anthropometric and ergonomic design. Ergonomics has benefit people in declining musculoskeletal disorders (MSDs) (Kroemer, 2001). However, children are hard to change when seeing that incorrect posture and habits become rigidly fixed over the period.