

## Summary

Studio Lentala presents a collection of seats designed for children and adults. The design is based on a new sitting philosophy that focuses on active sitting using a choreography of postural affordances, where affordances can be understood as invitations to move.

The seats are designed to invite autonomous and active postures and movements of the body, which mobilize muscle groups to function actively and keep the body energized. Each seat is designed to incorporate a minimum of four different postures, as frequent variations in alternative sitting positions increases the activity of muscles that would otherwise be left unused in conventional chairs.

To not take the Lentala seats as a regular design presumption, in 2020 and 2022 two classroom-based studies have been conducted by human movement scientists from two Dutch universities. A total of 79 primary school children from four classes participated. The aim of the two research studies is to understand whether the design approach of Lentala indeed invites postural change and diversity compared to conventional chairs altogether.

In both classroom-based studies, children used Lentala seats during regular lessons across several weeks. Results show that children clearly prefer the Lentala seats over the conventional chair. In particular, the children testified that the seats allow them to move a lot but also to work more focused; the seats are better-looking and make the children feeling happier.

Detailed analyses of time-series of the postures and movements that children adopt while sitting on the Lentala seats confirm the children's experiences. The Lentala seats invite more active sitting. In particular, while working on the Lentala seats, children adopt a larger variety of postures and shift more often between postures than with the conventional classroom chair.

The collaborating researchers are human movement scientists Dr. Simone Caljouw (University of Groningen) and Dr. John van der Kamp and Wanchun Weng, Msc (Vrije Universiteit Amsterdam), who specialize in the theory of affordances and its practical applications. Among others, they have previously investigated an alternative office environment called 'The End of Sitting' developed by Rietveld Architecture - Art - Affordances (RAAAF), to examine how adult workers adapt to office environments without chairs.