



## **Determining Self-Preservation Capability in Pre-School Children**

### **Executive Summary**

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This report describes a study that was undertaken by Anca Taciuc and Anne S. Dederichs at the Technical University of Denmark and directed by the Fire Protection Research Foundation. The Technical Committee on Assembly and Educational Occupancies for NFPA 101, *Life Safety Code*, needed more information on the topic of at what age that children are considered capable of self-preservation. This study included a review of literature on the topic and a questionnaire to early childhood experts and teachers.

There is little data about evacuation characteristics of children. Self-preservation capability is defined as the ability of a client to evacuate a location (1), in this case a day-care occupancy, without direct intervention by a staff member, having as example: persons who are not able to use the stairs or cannot follow directions to go outside of a facility. As examples for intervention from staff members there are: carrying, guiding by direct hand-holding or continued bodily contact with the client.

The purpose of the current project was to recommend the age at which pre-school children may be considered being capable of self-preservation. Furthermore, the goal was to gain a better understanding of child behavior and also to have an overview regarding the evacuation procedures in case of fire in day-care centers. To find these answers, an international survey among teachers from day-care centers and experts in children development was carried out.

Teachers and experts have different opinions with respect to self-preservation in pre-school children. Taking into consideration data received from teachers and experts from all countries, the age at which a majority of children are considered capable of self-preservation is between 30 and 36 months. At this age, a majority of children are considered able to understand and follow simple instructions, walk on horizontal surface without physical support and walk down stairs.

(1) NFPA 101, Life Safety Code, 2012.