Ergonomics Methodology for Validating Educational Toys

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Playing is the main activity of children and it is important for it enables them to make decisions, express feelings and values, communicate and express both their individuality and identity, to know themselves, the others and the world and repeat pleasant actions (Kishimoto, 2010). Therefore, the toy, a ludic instrument used to guide the play (Kishimoto, 2010; Macedo, Petty, Passos, 2005; Winnicot, 1979; Benjamin 1984), becomes an important interlocutor in child development. The educational toy, a ludic instrument aimed directly at child development must be designed considering the needs of children according to their development and/or age aiming to contribute to the development of their motor, cognitive, psychological and social skills. The current article aims to present a proposal of ergonomics methodology for validating educational toys as to their contribution to the development of physical, cognitive, psychological and social aspects of children with typical and atypical development. The proposal was developed through the Participative Ergonomics (Hendrick, Kleiner, 2006), associated with the method of Ergonomic Analysis of Work (Wisner, 1987; Guérin et al, 2001; Vidal, 2003), through a systematic process of Social Construction (Daniellou, 1988, Saldanha, 2004) and had the following steps: 1) Constructing an educational toy prototype in real scale. 2) Choosing the institutions where the validation of the toy would occur, which included: psychology, physiotherapy, occupational therapy and speech therapy clinics, children’s schools and institutions which work with children with special needs; 3) Global analysis of the institutions involved with the presentation of the proposal of the toy and the research purposes to the specialized professionals. 4) Multidisciplinary and situated validation of the different ways of using the educational toy by the children with normal and atypical development under the orientation and supervision of specialized professionals. 5) Analysis of results. 6) Collective and individual validation and restitution of results. 7) Final results with the elaboration of proposals to improve the toy project. This methodological proposal is expected to contribute to the process of design and validation of educational toys and as consequence the global development of children with typical and atypical development.

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References


