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## Playground equipment in the function of didactic games

*Pregledni znanstveni članek*

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**KLJUČNE BESEDE:** ergonomsko projektiranje, pohodništvo za otroke, antropometrične mere

**POVZETEK** – Igrača je pomembno vzgojno-izobraževalno sredstvo. Ni druge stvari na svetu, ki bi bila tako privlačna za otroke in bi tako izpolnila njihov čustveni svet, kot ga lahko igrača. Z njeno pomočjo otroci razvijajo svoje čute in mišice, učijo se družabnosti. Igrače prispevajo k razvoju inteligence in pomagajo pri učenju. Razvijajo ustvarjalnega duha pri otrocih in prispevajo k razvoju komunikacijskih veščin. Sodobne igrače morajo biti ergonomsko zasnovane zaradi varnosti in zdravlja otrok v času igre. Namen tega prispevka je predstaviti rezultate statičnih in dinamičnih antropometričnih meritev dimenzij predšolskih otrok iz osrednje Srbije. Merjenja smo izvedli v vrtcu v vseh treh starostnih skupinah (3-4 leta, 4-5 let, 5-6 let). V raziskavi smo definirali skupaj 32 statičnih in 15 dinamičnih antropometričnih količin. Ugotovili smo, da na osnovi statičnih in dinamičnih antropometričnih izmer lahko lahko izboljša varnost, funkcionalnost in udobje uporabnikov.

*Review scientific paper*

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**KEYWORDS:** ergonomic design, child's playground equipment, anthropometric measurements

**ABSTRACT** – A toy is considered as a highly important pedagogical and educational instrument. There is no other object in the world that attracts a child as a toy does. Nothing fulfills the child's emotional world like a toy. A toy helps the child develop senses and muscles as well adopt the rules of social behavior. The toy plays an important role in intellectual development and assists the learning process. It improves creativity and contributes to the advancement of communication skills of a child. Modern toys offered to children should be ergonomically designed in order to improve the safety and health of the children during a game. Given that, the aim of this paper is to present the results of static and dynamic anthropometry of the body dimensions of pre-school children (from Central Serbia). The measurements concerned three age groups of children: junior (3-4 years old), middle (4-5 years old) and senior (5-6 years old). For the purposes of this project, a list of 32 static and 15 dynamic anthropometric measurements of arm and leg outreach of the children were done.

### 1. Introduction

A toy is considered as a highly important pedagogical and educational instrument.

The great importance of a toy for physiological and physical development of a child is well described by E. Seguen: "Books can never teach what toys can yield to a child...if you observe what kind of toys your children prefer, you will be able to predict what kind of persons they will grow up to be" (Jekić, 2011).

There is no other object in the world that attracts a child as a toy does. Nothing fulfills the child's emotional world like a toy. A toy helps the child develop senses and