A System Dynamics Approach to Exploring Personality Traits in Young Children

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Abstract : System dynamics is a systems engineering approach that can help address the complex challenges in different systems. Little is known about how the brain represents people to predict behavior. This work is based on how the brain simulates different personal behavior and responds to them in the case of young children ages one to five. As we know, children's minds/brains are just as clean as a crystal, and throughout time, in their surroundings, families, and education center, they grow to develop and have different kinds of behavior towards the world and the society they live in. Hence, this work aims to identify how young children respond to various personality behavior and observes their reactions towards them from a system dynamics perspective. We will be exploring the Big Five personality traits in young children. A causal model is developed in support of the system dynamics approach. These models graphically present the factors and factor relationships that contribute to the big five personality traits and provide a better understanding of the entire behavior model. A simulator will be developed that includes a set of causal model factors and factor relationships. The simulator models the behavior of different factors related to personality traits and their impacts and can help make more informed decisions in a risk-free environment.
Keywords : personality traits, systems engineering, system dynamics, causal model, behavior model
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