

## Toy Solutions for Children with Autism Spectrum Disorder Using Gamification

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### Abstract:

Toys may make learning enjoyable for kids and can be used to teach a lot of concepts that are hard to teach in other contexts. It is also possible for toys to improve young children with ASD's learning. As a result, they are more receptive to learning and psychologically more receptive. Toy solutions with interactivities and animations are visually appealing, inspiring, hold kids' interest, and extend the learning process. When it comes to commercial toys, the market typically offers generic toy solutions that address the unique, complicated educational needs of kids with ASD. Many of the commitments made in the process of building ASD therapies center around encouraging the creation of playfully designed toys that offer crucial flexibility. During interventions, this method provides educators and caretakers with easy access to various stages of the developing cognitive processes in the children, such as specific information on the methods the children employ. In order to directly assist interventions, the teacher can have direct support for behavior and learning content through the vast set of data that has been acquired. **Problem Statement:** Would the implementation of gamification might improve toy solutions that contribute to enhancing the learning habits of children with ASD? **Significance:** This will be accomplished by assessing a set of put into practice toy solutions that were created in accordance with the preliminary exploratory study of learning behaviors while engaging in commercial toys that are part of the educational learning objectives of the ASD preschool curriculum and the physical circle skill set. **Objective:** The purpose of this study is to determine whether gamification might improve toy solutions for understanding the learning habits of children with ASD. **Results:** By including the above factors in toy solutions, it has been possible to create certain products in the form of toys that are especially designed to meet the learning needs of kids with ASD and hence improve their learning. Those findings should help develop pedagogical strategies and optimize design principles and guidelines for additional toy solutions with gamification that serve the aforementioned educational learning goals of children with ASD in a more complex and comprehensive manner. This will result in a deeper and more substantial contribution to the research on ASD teaching tools.

### Keywords:

Toys, Autism Spectrum Disorder ASD, Gamification, Education, Therapy

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