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Development of a part for handmade toys -An introduction to the PET bottle connection part-

Yuko Ito, Kaoru Inoue, Misako Okada, Yujiro Tanaka
Tokyo Metropolitan University, Tokyo, Japan

Introduction

Handmade toys were using by Occupational Therapist and nursery school teachers, special education school teachers and parents of Developmental Disordered Children and others. PET bottle toy was very fun and was considered a motivated tool to children. PET bottle toy is made of 2 PET bottles, water, shining things or beads and plastic tapes. However, the plastic tapes used for fixing the 2 PET bottles is very week. Therefore we developed a new connection part to be more stable, safe, hygienic and simple.

Connection part feature

This part made from reinforced plastic. The pipe is 30mm diameter, 50mm height. PET bottle is designed to be connected to the both ends. After we made the toy with new connection part, it was easy to use and change water inside the toy.

Methodology

This part was developed through the Industry-Academic-operation public cooperation project running at our university. At first we give the coordinator of the project an overview about our idea. The coordinator organized a meeting including our group, a government office representative and supplier. Our university is located in Arakawa-ku in the eastern part of Tokyo where many medium and small-sized businesses are located. This project can contribute positively to local promotion. The die trial manufacture of this product depends on Matsuda die Co., Ltd.

Result

We introduced the prototype to several occupational therapist and parents. Therapists and parents commented saying "it's really useful".

Conclusion

Through this study, we developed prototype PET bottle connection part. We intend to investigate the problems of the prototype when used by the concerned developmental disordered children. Moreover, some improvement should be taken into consideration regarding the new part aiming the commercial production in the near future.

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