3D print design for adapting toys

Type of Project

Ongoing research project

Summary

CEAPAT, Spanish Reference Centre of Personal Autonomy and Assistive Products, during the last years is increasing the experience on the creation of 3D based assistive products. CEAPAT-IMSERSO catalog includes accessible buttons, supporting facilities for people with motor impairments and tools for children to promote their opportunities to play.
In order to share these designs, they are available in the site Thingiverse. The amount of designs created by CEAPAT are 20. The aim of this experience is helping users, families and professionals that are interested in printing their own assistive products.

Low-tech, high-tech products, services and contexts for play

During the last two years some professionals working in CEAPAT are developing assistive products with a 3D printer.
Some of these designs can be very useful for children with disabilities as they facilitate the opportunities for play.
In order to share these designs, they are available in the site Thingiverse. The amount of designs created by CEAPAT are 20. The aim of this experience is helping users, families and proffesionals that are interested in printing their own assistive products.
One example is the one in the picture: a switch designed for people with limited movement to operate comunication devices, toys and other electronic equipment.

http://www.thingiverse.com/ceapt/designs

The context of use

Home, school, rehabilitation center.

Type of play in this play system

Cognitive

Symbolic
Rule play (including videogames)

Social

Solitary
Parallel
Associative
Cooperative

Objectives related to play according to ICF-CY

Play for the sake of play: Major life areas - d880 enagement in play

d8800 solitary play
d8802 parallel play
d8803 shared cooperative play

Community social and civic life - d920 recreation and leisure time

d9200 play

Play-like activities: Therapeutic and educational objectives

b1 Mental functions
b2 Sensory functions and pain
b7 Neuromusculoskeletal and movement related functions
d1 Learning and applying knowledge (learning through symbolic play, learning through pretend play)
d3 Communication
d4 Mobility
d7 Interpersonal interactions and relationships

Number of participants

>20

Chronological Age

0-3 years
3-6 years
6-12 years
12-18 years

Development Age

0-3 years
3-6 years
6-12 years
12-18 years

LUDI Categories of disabilities

Physical impairments:
Severe

Explanation on the use of low-tech, high-tech devices, services or contexts

Explanation

Visual instruction with written language
Visual instruction with pictures or drawings

Involvement

Adult: therapist/educator/researcher
Parent or significant others
Peer with disabilities
Peer without disabilities

Role

Providing instruction

Evaluation of objectives and outcome measures

Description of outcome measure(s)

Feedback from client/parents/professionals

Information about availability of outcome measure: publisher, website, contact person

Outcome measures:

http://www.thingiverse.com/ceapt/designs

http://www.thingiverse.com/ceapt/analytics/
"View your analytics"

Summary of achieved effects

http://www.thingiverse.com/ceapt/designs

- 36 followers
- 14 following
- 20 designs
- 6 collections
- 88 likes

References to the intervention or research project

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Keywords

Assistive products, buttons, print design 3d, adapted toys.