

TECHNOLOGY AND MEDIA SERVICE FOR INDIVIDUALS WITH DISABILITIES
STEPPING STONES OF TECHNOLOGY (CFDA 84.327A)

Project UDP: Developing a Tool to Measure Universal Design Features for Play

Purpose:

This phase I project will develop and validate a tool to identify and evaluate the usability of toys for all children (birth to three), including those with disabilities, by examining the universal design components. The Universal Design for Play tool will allow parents of children with disabilities, individuals who purchase toys (childcare providers, hospital workers, commercial buyers) and toy designers to successfully identify toys with universal design characteristics. Information related to the development of this tool as well as information gained through this project related to play in children (birth to three) with disabilities will be disseminated in a variety of formats.

Method:

A Universal Design for Play tool will be developed using the following four phase procedure:

Phase I: 1) Current information on toy characteristics and toy usability will be gathered; 2) Two focus groups composed of parents of children with disabilities, parent of children without disabilities, toy purchasers (childcare providers, hospital workers, commercial buyers), and toy designers will be conducted to develop a list of the attributes of well-designed toys

Phase II: 1) The list of attributes developed through the focus groups in Phase I will be analyzed and comments weighed to derive a list of universal design attributes of toys, 2) Content validity will be established with the experts participating in the focus groups; 3) A blueprint of the Universal Design for Play (UDP) tool will be created

Phase III: 1) A large scale field test (involving approximately 250 participants) will be performed using the UDP tool; 2) Test-retest reliability of the UDP tool will be established by having approximately 50 of the field-test participants apply the tool to a selected toy two times over a three week period.

Phase IV: 1) Using the data from the large scale field test construct validity of the UDP tool will be established; 2) The final version of the UDP tool will be developed.

Dissemination:

A description of the development and validation process of the Universal Design for Play Tool, in the form of a scholarly research manuscript, will be disseminated, as well as the final UDP tool itself. Guidelines for its use tailored to three identified groups of users -- families, toy buyers and toy designers -- will be produced and distributed. Avenues of dissemination of the manuscript will include submission to professional journals and conference presentations in the fields of special education, special education technology, early childhood education, allied health, and engineering. The Universal Design for Play tool will be made available in several formats. The Universal Design for Play Tool and a description of the development and validation process will be added to the Let's Play!, and collaborative partner Web sites. Additional information regarding development of play in children with disabilities, birth through three, will also be added to the sites as part of this project.