Design for Dwarfism

Interdisciplinary Collaboration

Occupational Therapy - Interior Design - Industrial Design

New Jersey Occupational Therapy Association
Annual State Conference
October 23 & 24, 2010
Prof. Mary Falzarano, MHS, OTR
Occupational Therapy

Prof. MJ Divino, M.Arch
Interior Design

Prof. Matt Johnson, M.I.D.
Industrial Design

Maria Perez
Director - Center for Professional Development
Project Rationale

**Andragogical Learning:**
- To develop a deeper understanding of similarities & differences between Occupational Therapy (OT), Interior Design & Industrial Design.
- Each discipline brings expertise resulting in an expansion of the “client centeredness & creativity” of the project.
Student Problem

• The basis of the project is to study and design living situations and products that accommodate both people with Dwarfism and people of average height.

• Specifically, to evaluate a mixed-height couple and retrofit an existing space within a building on Kean’s campus to suit their lifestyle.
The Professors/ Staff

• **OT**
  - Capstone program development project

• **Interior Design**
  - Junior Level Design Studio focusing on residential and universal design.

• **Industrial Design**
  - Senior portfolio project: teambuilding, collaboration, real world focus.

• **Maria & Rob the “clients”**
  - Provided resource information relevant to their particular situation.
The Students

• All students met & emailed
  – Identified issues surrounding a person with short stature
  – Defined the contribution each profession provides to meet the client’s needs/desires

• OT
  – Client centered evaluations
  – Conceptualized adapted products

• Interior Design
  – Researched design for persons with Dwarfism
  – Evaluated the space and retrofit possibilities

• Industrial Design
  – Developed product ideas stemming from authentic OT evaluations
  – Created products useful to both clients and fit within newly redesigned interiors.
Benefits of Collaboration

• Clinicians
  - Recognize the contribution of the process & principals that guide the practice of Interior & Industrial Design
  - Seek the expertise of these professionals

• Educators
  - Recognize the contributions of these professionals
  - Utilize consultation/collaboration for student based projects

• Students
  - Participate in active learning: “real world” experiences
  - Use positive teamwork skills
  - Articulate their profession’s scope of practice

Buchbinder, et al., 2005; Hall & Weaver, 2001; Leader & Liu, 2005; Price, Zavotka & Teaford, 2004; Royeen, 2002; Strzelecki, 2009; Yeager, 2005
Solution:
Collaborative Interdisciplinary Research through Discovery, Application and Integration

Specific Actions:
Client Needs Evaluation
Home Interior Space Analysis and Re-design
Assistive Product Ideation and Design
Your Learning Outcomes:

• Identify
  – Role of OT collaboration with Interior Design and/or Industrial Design professionals

• Recognize
  – Issues that may affect a person with short stature

• Relate
  – Philosophical tenets of universal design, usability & accessibility that are parallel to the tenets of OT

• Apply principles discussed
  – To home modification & product development for people served by occupational therapists.
The Principles Of Universal Design

Courtesy of:
The Center for Universal Design
North Carolina State University
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1. EQUITABLE USE
   The design is useful and marketable to people with diverse abilities.

2. FLEXIBILITY IN USE
   The design accommodates a wide range of individual preferences and abilities.

3. SIMPLE AND INTUITIVE USE
   Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

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7. SIZE AND SPACE FOR APPROACH AND USE
   Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.
Interior Design
Industrial Design
Kick- Plate Riser
Drop Step Ladder
Client Perspective

Maria Perez
Audience
Questions
Thank you!
References


