# Beneficial Design – Philosophy of Design for... Designing Beyond the Norm to Meet the Needs of All People

Peter W. Axelson, MSME

Beneficial Designs, Inc. Minden, Nevada www.beneficialdesigns.com

## When is Design Beneficial?

Universal Design Adaptable Design Adaptive Design

#### **Mainstream Products**

Applying Universal Design Principles to Products

# **Designing Products for Adaptability**

The Control Interface

#### The Seating Interface

Development of Adaptive Technologies

Use of Technology to Enhance and Create Experiences

# Personal Technologies Activity-Specific Technologies Environmental Technologies

Personal Technologies

Things that you wear

Activity-Specific Technologies

**Environmental Technologies** 

Things that do not move

Experiential
Balance Dimension
Sociological Dimension

#### **Experiential Dimension**

Life Function Activities Vocational Activities Recreational Activities

#### **Balance Dimension**

Physical Intellectual Spiritual

# **Sociological Dimension**

Dependence Independence Interdependence

Need Function Interests Preferences

Meeting Peoples' Needs

#### Whose Needs?

Average person 5 foot something 75 kilograms

# **Functional Assumptions**

Mobility Vision Hearing Grasp Endurance

# **Long Term Disabilities and Impairments**

Aging Related Disabilities and Impairments

**Shorter Term Disabilities and Impairments** 

#### **Understanding the Limiting Process**

Pathophysiology Impairment Functional Limitation Disability

## **Quantify User Function**

Strength

Cognitive Function

Skills Required

**Economic Resources** 

Mobility Requirements

Intuitive Sense

Balance Requirements

Coordination

Patience

# **Identify and Evaluate Interests**

Businesslike - Playful

Inconspicuous - High profile

Luxurious - Utilitarian

Robust - Delicate

Expensive - Low budget

Macho - Sensitive

Recreational - Career oriented

Masculine - Feminine

Sexy - Dull

Sporty - Dignified

Functional - Fanciful

Conventional - Innovative

Versatile - Specific use

#### **Re-Creation Preferences**

Competitive vs. Non-competitive

Active vs. Passive

Individual vs. Group

Dependent vs. Independent

Integrated vs. Segregated

Modified vs. Unmodified Rules

## **Design Process**

- 1 Listen
- 2 Let go
- 3 Gather info
- 4 Let go
- 5 Reflect
- 6 Wait
- 7 Act

#### Listen...

to what you are being asked to do

#### Let ao...

of your hold on what first seems best from your perspective

#### Gather info...

from the best sources of wisdom you can find

# Let go...

of your hold on what first seems best based on your own desires

#### Reflect...

on the decisions or recommendations you must make

Analyze... with your mind

Listen... to your heart

Talk... to someone greater than you

#### Wait...

for consistency in your thoughts and feelings

## Act...

making the best recommendations you can

# Clearly communicate your outcome

# Accept the consequences of your actions

Beneficial Designs Inc.

P.O. Box 69

Minden, NV 89423

775.783.8822

775.783.8823 fax

peter@beneficialdesigns.com