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

Beneficial Designs, Inc.

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 go... 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