Beneficial Design
Designing Beyond the Norm to Meet the Needs of All People

Peter W. Axelson, MSME
Beneficial Designs, Inc.
Santa Cruz, California
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Peter W. Axelsson, MSME
Beneficial Designs, Inc.
Santa Cruz, California
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
Life Function Activities
Vocational Activities
Recreational Activities
Life
Function
Technologies
Vocational Technologies
Recreational and Leisure Technologies
Balance
Dimension
Balance Dimension

Physical
Intellectual
Spiritual
Physical
Intellectual
Spiritual
Sociological Dimension
Sociological Dimension

Dependence
Independence
Interdependence
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
Evaluate who will use your ideas
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
Listen ...
to what you are being asked to do
Let go ...

of your hold on what first seems best from your perspective
Let go ...
of your hold on what first seems best from your perspective
Gather info ...
from the best
sources of wisdom
you can find
Gather info ...
from the best sources of wisdom you can find
Let go ... of your hold on what first seems best relative to your own desires
Let go ...
of your hold on what first seems best relative to your own desires
Let go ...
of your hold on whatfirst seems bestbased onyour own desires
of your hold on what first seems best based on your own desires
Reflect ...
on the decisions
or recommendations
you must make
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
Wait ...
for consistency in your thoughts and feelings
Act ...

making the best recommendations you can
Act ...
making the best recommendations you can
Clearly communicate your outcome
Accept the consequences of your actions
Thank you