PROMOTING UNIVERSAL DESIGN IN PUBLIC BUILDINGS:
AN ACTION RESEARCH STUDY OF COMMUNITY PARTICIPATION

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Overview of presentation

• Introduction
• Context
• Literature review
• Methodology
• Method
• Co-researchers
• Findings
• Discussion
“Not being able to go out in the community is like having a day with no sun”
Universal design

What is it?

Auckland Art Gallery - requires some users to use an alternate door to the right of the main entrance

Birkenhead Library - all users use the same entrance

Photos by E. Copeland 2012
Universal design is

“The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design” (Mace, 1985)

“A process that enables and empowers a diverse population by improving human performance, health and wellness, and social participation” (Steinfeld & Maisel, 2012)
Context

(Permission granted from the Hong Kong Architectural Services Department for use of this image)
Demographic Trends

20% of New Zealanders with a disability (SNZ, 2006)
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260,000 ACC claims due to falls in the home (ACC, 2011)
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271,000 Children under the age of 4 (SNZ, 2002)
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26.5% Obese (MSD, 2010)

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271,000 Children under the age of 4 (SNZ, 2002)

By 2061, 27% over the age of 65 (SNZ, 2009)
Literature review

- People have valuable experiential knowledge
- This knowledge is frequently overlooked by professionals

- There is a need for standardised assessments of the success of building design
- These assessments do not exist
Methodology

Pragmatic action research
Method – Search conference

1. Creating a shared history
2. Sharing a vision
3. Identifying actions
4. Choosing plans
5. Initiate change
<table>
<thead>
<tr>
<th>Step</th>
<th>Meeting #</th>
<th>Total time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Created a shared history</td>
<td>1</td>
<td>1 hr</td>
</tr>
<tr>
<td>2. Explored universal design</td>
<td>1</td>
<td>1 hr</td>
</tr>
<tr>
<td>3. Trialed the UD assessment</td>
<td>2</td>
<td>1 ½ hrs</td>
</tr>
<tr>
<td>4. Assessed a public building</td>
<td>NA</td>
<td>1-2 hrs</td>
</tr>
<tr>
<td>5. Established a shared vision</td>
<td>3/4</td>
<td>1 hr</td>
</tr>
<tr>
<td>6. Identified action plans</td>
<td>4</td>
<td>1 ½ hrs</td>
</tr>
<tr>
<td>7. Prioritized the actions</td>
<td>4</td>
<td>1 hr</td>
</tr>
<tr>
<td>8. Initiated change</td>
<td>NA</td>
<td>3 months</td>
</tr>
<tr>
<td>9. Reflected on the assessment</td>
<td>5</td>
<td>1 ½ hrs</td>
</tr>
<tr>
<td>10. Reflected on the process</td>
<td>6</td>
<td>1 hr</td>
</tr>
</tbody>
</table>
1. Entrances/exits

Would you please inspect the use of entrances/exits of the building by: (Please circle yes or no)

1. Using all the entrances/exits in each floor regarding their **equitable use**, e.g.
   - Do they provide same means of use for all users? Yes No Comments:
   - Do they provide privacy, security and safety that are equally available to all users?
   - Do they make the design appealing to all users?

2. Using all the entrances/exits in each floor regarding their **flexibility in use**, e.g.
   - Do they provide choice in methods of use? Yes No Comments:
   - Do they accommodate right- or left-handed access and use?
   - Do they provide adaptability to the user’s pace?

3. Using all the entrances/exits in each floor regarding their **simple and intuitive use**, e.g.
   - Do they eliminate unnecessary complexity? Yes No Comments:
   - Are they consistent with user expectations and intuition regardless of experience, knowledge or language skills?
   - Do they arrange information consistent with its importance?
Co-researchers

Findings – Feasibility of the process

• Within the 1st meeting, co-researchers were able to give examples of the universal design principles in buildings.

• Through group work activities, co-researchers learned how to use the assessment.

• After only 6 hours together, they were able to complete an accurate and thorough assessment of the library.
Reflection: Participation

“It’s been great how you have sought to actively involve us all on an equal platform... encouraging us to be actively involved in spreading the word about the research.”

“Everyone put into the direction… through the process we’ve all led and done things that we’ve brought together… for me, it’s not been about consultation, I think it has been much more about participation.”
Reflection: Learning by doing

“It was the process that enabled me to learn… I’m sure that I’ve seen the universal design principles before, but unless you actually have to do something with it [you don’t learn]”

“You’re not just getting our perspectives on things, you’re actually getting us to assist with trying to develop the understanding of universal design.”
Findings – Utility of the assessment

- Co-researchers ‘thought outside themselves’
- Co-researchers generally identified the same barriers to participation, but for different reasons
- The universal design principles were critiqued
- “Tolerance for error” was more difficult to assess

(Story, Mueller & Mace, 1998)
Discussion

• Good points about the assessment
• Room for improvement
• Recommendations from the group
Insights from the co-researchers

• Buildings and transport are not separate.
• Sometimes it is not the building design that affects usability.
• Disability is a normal part of life.
References


Huss Pace, M. G. (2006). Preferences for universal design features in apparel retail stores by older female apparel customers (Ph.D. dissertation). The Ohio State University, Columbus, Ohio.


References continued (3)


