Visualising Home
Older People Adaptations and Management of the Design Process in Private Housing

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Building Partnerships
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Cross-disciplinary research team. The focus of the study is on the communication processes involved in the design of housing adaptations for older people.
‘It is like when you buy a new three piece suite. You see things in a shop and you have a good idea about it…

But when it comes home it is completely different.’
An imaginary leap: from drawing to finished adaptation.
Research Partnerships

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Strategic Promotion of Ageing Research Capacity

This is a joint venture by the BBSRC and the EPSRC to build a network of biologists, physical scientists, designers, engineers and practitioners interested in conducting ageing-related research.
What is the Research Study?

A Feasibility Study of Knowledge Management Information and Visualisation Systems:

*Integrating the Technological and Social Models of Later Life in the Maintenance and Adaptation of Private Housing*
Research Aims

1) Expose the process of getting maintenance, alteration and extension works carried out in private, owner occupied housing
2) Identify and examine the roles of the key resource controllers involved in determining client needs and initial solutions including:

- Client and Carer
- Occupational therapist
- Builder
- Architects, Designer
- Building surveyors
- Building control official,
- Planning official
- Grant or technical officer
3) Locate the sources and extent of knowledge related to key design and implementation issues

4) Map the flows of communication and transfer of this knowledge
5) Determine the feasibility of developing systems and an information and visualisation tool to support the design process to ensure that both the user and the builder are presented with best technical answers to fully meet their needs.

6) Determine the feasibility of developing an information and visualisation tool to support the design process.
Structure of the Feasibility Study

Duration: 12 months.
Started January 2006

Focus is on one London Borough which has a mixture of different types of owner-occupied housing.
Stages in the Study

1. Literature review + ethical approval

2. Establishing contacts – identifying participants for interview

3. Interviews with professionals and users. Use of a case study approach to determine ‘flows of knowledge’

4. Analyse, and report on, existing roles and structures + make recommendations for development of new knowledge management systems
Methodology

- Initially sought older people who had followed the DFG route as well as those who had financed adaptations privately to participate in the study.

- Search was for people aged 60+ who had an adaptation costing £10,000+ completed during 2005-2006.

- All architects and surveyors in the London Borough were contacted but none could identify any such privately financed projects.
• Contacts with the social services occupational therapists were much more productive: eleven projects at £10,000+ were identified and a further seven at £7000+ were identified. (Bathroom and toilet conversions, spatial reorganisation)

• Interviews conducted with individual clients (with a wide range of problems).
Themes from the Findings

• Professional interaction: attitude, content and the means to convey the message

• Knowledge exchange and development of information to builders

• Communication issues with clients to develop a 3D visualisation tool
Key Role of Occupational Therapist

• Interviews with clients, occupational therapists, surveyors and builders.

OT is central!
Communication line – OT

- Client assessed by OT
- OT requirements to grant surveyor
- Surveyor produces drawing

Main communication mode between OT and surveyor is the plan drawing
the plan drawing
Communication line – OT

• Design agreed between OT and grant surveyor – OT has final say

• Plan drawing goes to builder
Builder’s drawing - existing layout

Wash hand basin to be removed

Partition wall to be removed

W.C. Pan and cistern to be removed

Existing radiator to be removed

Light fittings to be removed

Doors to be removed

Bath to be removed

T.E.
Builder’s drawing – proposed design
OT’s drawing - shower projection
Client – OT interaction

• Most contact with client
• Explains surveyor’s design
Client - OT Interaction

‘I was more worried what it would look like than if it functioned.’
Means of communication

- catalogues
- exhibitions
- photos of projects
Client – OT interaction

• Client consent at every stage
• Client led by OT
Client designs with builder

• fittings
• tiles
• other extras
The progress of construction is a potential source of stress to the client.
Communication Challenges to OT Understanding

- Not age-related
- Severe physical and/or psychological problems
- Cognitive problems - rely on representatives (family)
Difficult Adaptations to Explain

Most difficult concepts
1) Level access shower: the ‘wet floor’
2) Aesthetic concerns: satisfaction
3) Ramp – length in relation to gradient
4) Outdoor step lift

All interviewed clients:

Concerns about space
Client Engagement in Design

-participation
-information and consent
-trust

‘One thing which could be improved is that you talk about the adaptation but they don’t have a clue what you are talking about.. You do your best to describe it.’
Adapting the communication for the carer and family

Representing the client, heavy assistance by spouses
“We simply had to trust the OT.”

No project moves forward without client consent...a certain level of understanding
3D tool

OT view that it would facilitate the client understanding the design: all clients enthused: ‘It is a brilliant idea. The drawings are OK, but I had difficulty understanding where all the rails would be.’
3D tool

Secondary literature search:

*Telford and Wrekin Home Improvement Agency*
3D tool

HIA Surveyors utilising 3D tool for MnG Designs: image for OTs to use with clients – no formal follow up of use
3D tool: choice and quality standards

Next stage commission would:

Investigate great practice: Habinteg HA, Alison Wright’s Easy Living Home
Smart thinking
Summary

Two dimensions of communication:

- OTs ability to present rationale for adaptation: *trust and client issues*

- Information presentation: *client understanding, issues not raised*
Summary

Four issues for adaptation in the home:
1. Importance of visualisation of the finished product - linked to stored information
2. Clients adapting to the adaptation...
3. Understanding design issues
4. OTs supporting through construction
Discussion

Clients ineligible for the grant:
• What are their strategies for resolution?
• Getting more builders on board
• Develop 3D tool practice
The community of practice: evaluation of ongoing practice
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