

The use of landmarks in pedestrian navigation instructions



... and the effects of context

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Our current work

- Navigation systems & mobile communications



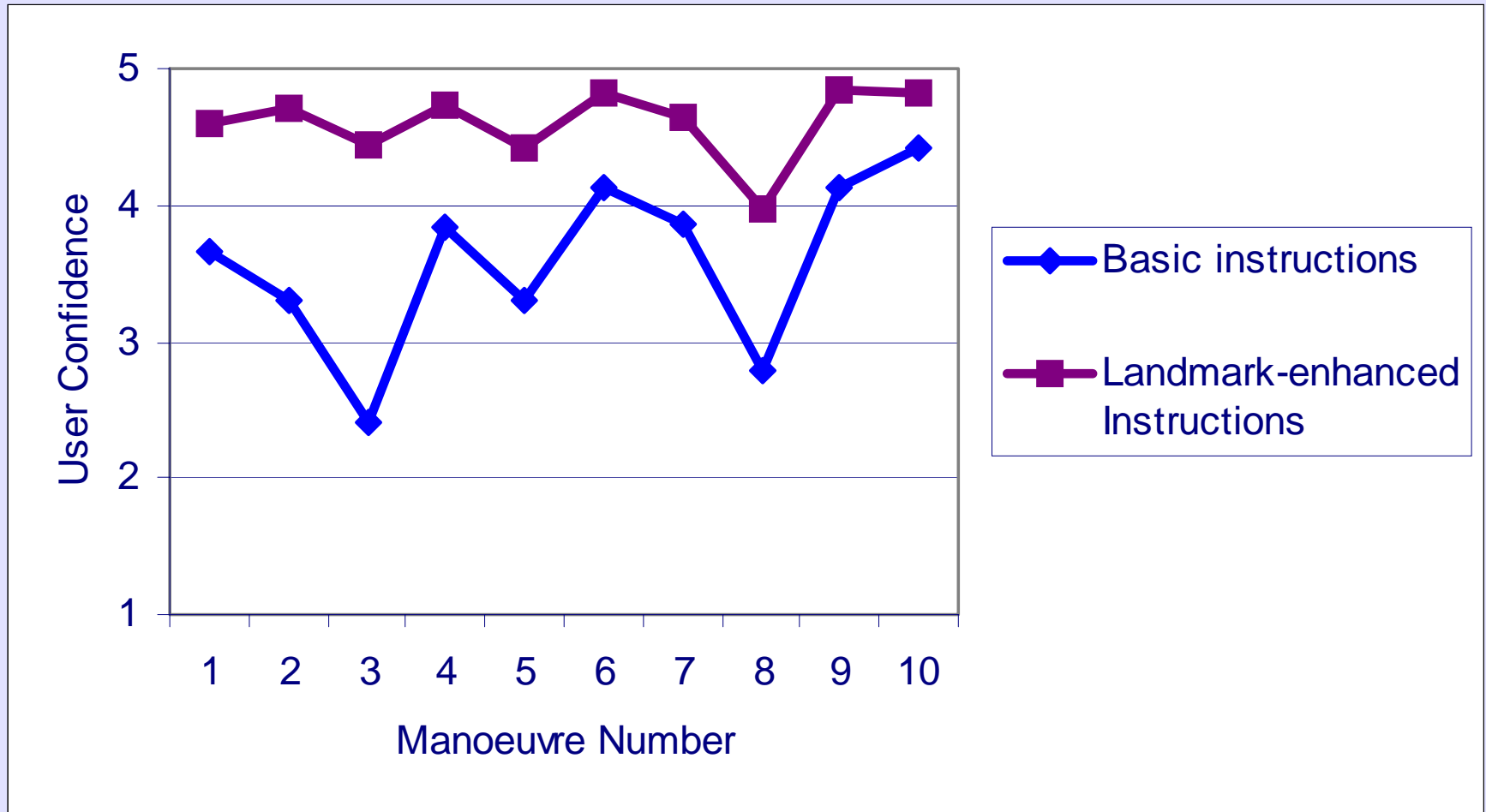
- 'Valued LBS' Project (2003-2005)
- EPSRC funded
- Collaborators: OS, Yeoman (TrafficMaster), VTT
- To develop & test new concepts for LBS
 - Consumer - professional
 - Information - communication
 - Functional - fun

- LBS in the construction industry (2004-2005)

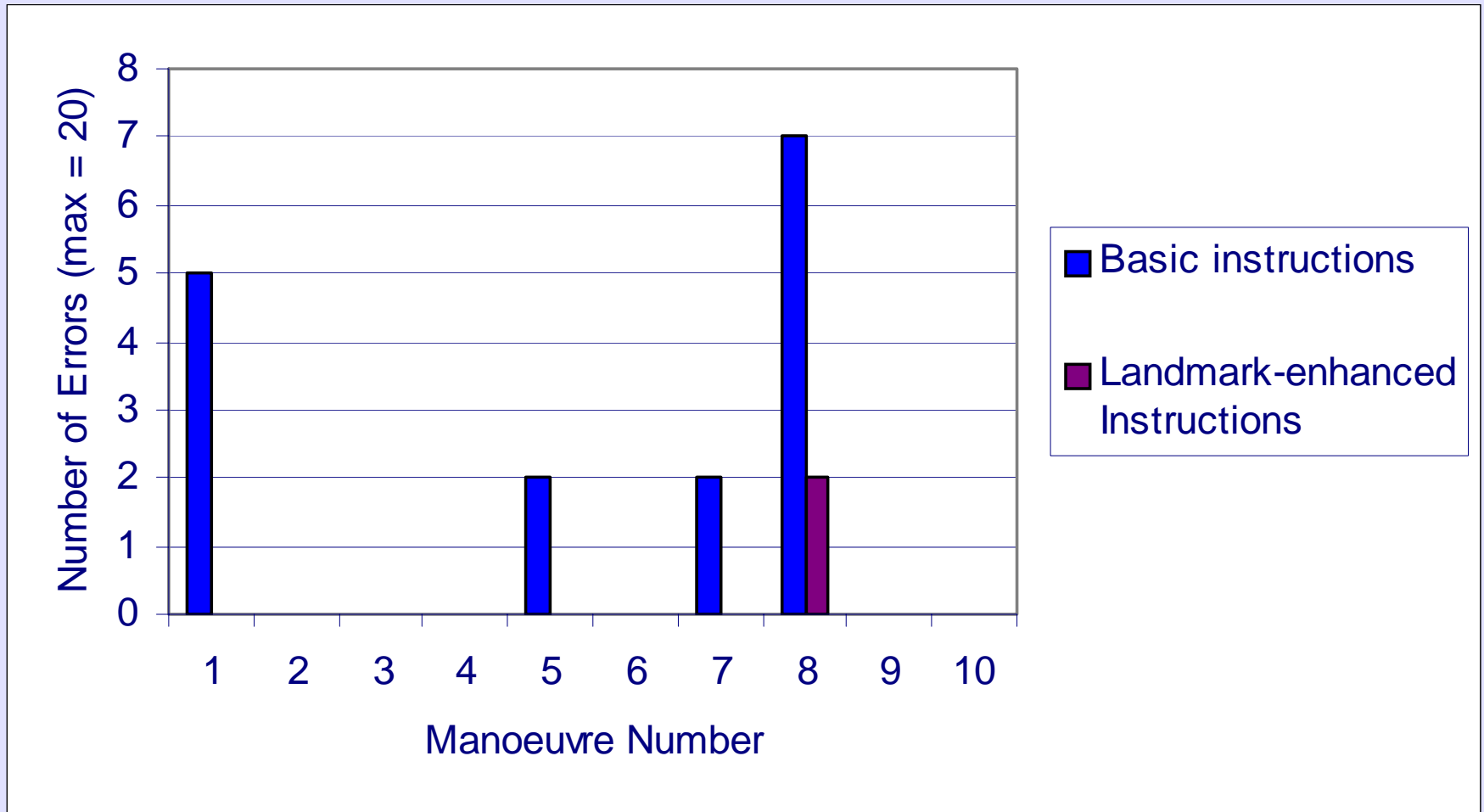
Outline of the study

- Two matched groups
(n = 20; 50/50 m/f; age 20-41; mean = 24)
- Unfamiliar route
- Text instructions on flip cards
- Basic vs landmark-enhanced
- 18 manoeuvres, 10 enhanced by landmarks
- Measured confidence & errors
(1-5, very unconfident–very confident)

Pedestrian Confidence



Navigational errors



Main results

- Landmarks = consistent, high confidence
- Landmarks = less errors
- Identification of turning from a distance
- Non-reliance on quantitative distance
- Some manoeuvres benefited more....
 - First manoeuvre
 - Multiple choices of direction
 - Pedestrianised areas
 - Low (or no) visibility of street names

Manoeuvre 5

After 0.2 miles continue straight on
and turn left onto Field Street

vs.

After 0.2 miles continue straight on **past the Library**
and turn left onto Field Street



New work on pedestrian navigation & LBS: beyond usability



Valued LBS project: identifying the 'value' of services

Value f

Potential benefits
Resources expended
Opportunities to
make a difference
Others sources of
information
Individual factors

- Value makes you take a device out of your pocket
- It makes you spend the effort learning and using it
- A service that provides value 'makes a difference' to that user
- It helps create a willingness to pay

Valued LBS project: assessing value

