The Simplification of Bus Stops to Increase Mobility of People with Cognitive Disability

Anna Michel
Christian Ressel
Pedro Ribeiro
Bastian Hoffmann
Stefan Koenen
Nicki Marquardt
Nele Wild-Wall

Introduction
- bus stop is an essential element to get access to the PT mobility
- important factor to affect using PT is complexity
- particularly people with cognitive impairments have various mental barriers in the interaction with complex PT system (occurred on the bus stops) and need support in this field
- cognitive barrier-free mobility demand a change of the design
- assumption: bus stops are complicated and have to be simplified

Objectives
- evolve a model of simplification of bus stop
- evaluate the defined factors of the simplification

Methods
- Field study - between-subjects design
  - factors: arrival/departure positions (2, 3, 4); arriving/departing buses (2, 3, 4)
  - sample: n = 13; mean age = 34.17; SD = 13.306
- Laboratory study - within-subjects design
  - factors: pictograms (2, 4, 7); distance between the promotion and passenger information on bus stop (10 cm, 120 cm, 210 cm); distance to other passengers (20 cm, 100 cm, 200 cm); noise of human voices (50 dB, 60 dB, 75 dB)
  - sample: n = 10; mean age = 36.70; SD = 13.174

Results
- Field study
  - Amount of attainment positions on four stop
  - Amount of buses depending with and on bus stop
  - Laboratory study
    - Amount of attention
    - Distance promotion to information
    - Noise level of human voice
    - Distance to other passengers

Conclusion
- RT increases depends on amount of positions and buses on the bus station
- dealing with sensory (visual) complexity get more simple rely on the distance between promotion and passenger information
- distance to other passengers influence the RT
- RT decreases with the noise level of human voices
- future work
  - less factors, combination, larger sample, more standardization, simulation, experimental vs. control group, evaluate other factors

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