Multilevel Random Coefficient What!?

I took a few statistics classes in my day; I understand ANOVA, linear regression, and statistical significance, but for the life of me, I could barely make out what Jipp was trying to report with the multilevel random coefficient modeling approach. How can I believe the study when I don't understand how they measured their variables?

This isn't the first time I've encountered measures which I'm unable to read. In the past, to be honest, I blindly trusted that researchers accurately report their findings within the discussion. I think this is pointing to a deeper question within an interdisciplinary field such as HCDE: are researchers at fault for presenting incomprehensible measures or are the readers at fault for not being able to understand the measures?

Moving beyond the statistical analysis, a part that stuck out to me was the participant recruitment. Due to the wheelchair prototype, which could not be adjusted for specific needs, healthy individuals were recruited (Jipp, 2012). Certainly healthy individuals are not a representative sample of those in wheelchair. Although Jipp accounted for skill acquisition, I still feel like the results obtained from this study are going to be hard to generalize to the actual wheelchair user population.

The research's epistemological stance is quantitative considering the measures and the language used within the paper (external validity, hypothesis, ect.). I found myself hungry for the detailed qualitative perspective! I wanted a deeper description and pictures of the "realistic office." Interviews with how a person experienced the obstacle course or their perceived difficulties using the wheelchair. Despite the lack of qualitative research, I found the paper enjoyable and ended up trusting the conclusions.

Questions:

1. Did you understand the statistical measures? Did you trust the conclusions drawn? Are researchers at fault for presenting incomprehensible measures or are the readers at fault for not being able to understand the measures?
2. Can the results generalize to a larger population? What would you do considering the constraints Jipp had?
3. Would qualitative data be useful in this study? Would qualitative data made the study more understandable or believable?

References

Jipp, Meike. "Individual differences and their impact on the safety and the efficiency of human-wheelchair systems." *Human Factors: The Journal of the Human Factors and Ergonomics Society* 54.6 (2012): 1075-1086.