# NOTES FROM SOFTWARE WALKTHROUGHS

See interview question format in Smith dissertation example

Cognitive walkthrough, heuristic evaluation, review based see Shneiderman, B. (1998) Designing the user interface: Strategies for effective human computer interaction (3rd ed.). Reading, MA: Additon-Wesley Publishing

## Academic researcher, focus on human comfort

currently involved with post occupancy studies in schools and residential buildings Colombia to determine occupants perceived levels of comfort

Questions -is it open source, how can I use it?

Feedback -thoughts on how to combine this system with their work. How to link with the noting that comfort is determined by more parameters than climate, how can we add age, socio economic class

How to make the data more local – can it work with hour data measured at cities or within cities

How is this applicable to Colombian architects who don’t really have time to undertake data exploration to develop building designs? Main concerns are meeting regulatory goals rather than striving for excellence

Can this be combined into national policy making to enforce use of this approach.

Authors interpretation – the way the psychrometric chart is configured is key this can be tuned to represent different demographics, age, sex, socio-economic groups. The perception of the users indicated the authors has overestimated the motivation of Colombian architects in providing low-energy buildings tuned to the user groups and usage patterns

## Part-time academic researcher/practitioner focus on façade systems

Confirmed the choice of key parameters temperature, temperature range, relative humidity and wind speed

Concerns about the variables and correlations within variables, how they could be tuned to relate to comfort if they were normalised,

Believed hourly data was essential to capture possibility of strategies that need differences between night and day, need for radiation

Found that monthly averages flattened detail of the data and therefore possibility to link with strategies

Observed how clusters tended to flatten the data.

Zoomed in on one or two locations on the map where by experience certain strategies should be useful, if those strategies weren’t linked to that location the results were dismissed as incorrect

Suggested more control as top down and saw the clustering as bottom up. Unable to express what this suggested in terms of control.

Wished for the ability to cluster individual parameters and overlay the results

The author interpretation – the need to test with hourly dataset, functionality to weight variables according to what had greatest impact on comfort, also how the clustering could be focused on one strategy and configured to automatically select variables required to define that strategy – for example strategies promoting natural ventral make the inclusion of winds mandatory, or strategies that suggest night cooling ensure night and day temperatures are represented in the variables the define the features used for clustering. How a psychrometric chart with more adaptable strategies could provide a focus on specific strategies and allow strategies to be defined in response to specific thermal comfort ranges. Clustering individual parameters and overlaying the results has been studied in relation to climate zoning (Rhee *et al.*, 2008) and described as consensus clustering. Such a method was reported to avoid issues of inappropriate correlation when closeting with diverse variables (Fovell and Fovell, 1993)

## Practitioner general architect

Not too familiar with p chart but commented on the need for adjustment depending on user and expectations

Described how he saw it as a key tool in developing a buildings energy strategy

How given the broad national level it could become a tool for regulation and governance to define expected design approaches in different regions of the country

Comparison of existing buildings identified in the same cluster but in different locations could be compared and studied

Saw use in the ability to explore patterns that related to specific periods of building use or where season start and end times vary based on same geographical or topographical variations – could lead to cost savings through fine tuning

Saw the tool as a centralise repository of data and analysis where users without knowledge of domains specific design tools could access both easily. UK access to data is not as easy as one expects

Saw a design process where the granularity of the analysis increased as the design progressed

Described the use in organisations with longer term view of construction and costs, such as developers and contractors with larger projects and economies of scale that can benefit from fine tuning of use of materials

## Practitioner general architect with specialism in