



Citizens and cities facing new hazards and threats

30th November to 4th December 2020

Designing effective data Visualisations For
Environmental Crisis Awareness: The
Importance Of Local Data

*Stephanie Libby/Charles
Boisvert*

Designing effective visualisations: literature review

- User centred design
- Tailored to audience, purpose and context
- Simplicity and clarity
- Aesthetics and graphic design principles
- Guide the reader's attention
- Reduce cognitive load
- Enhance pattern perception
- Appropriate transformation
- Trustworthy and authoritative
- Personally relevant, emotive, vivid
- Data relating to local issues



Key research activities

- 1) *Artifact analysis*
- 2) *Interview with two members of XR Sheffield's media and messaging team*
- 3) *Product backlog*
- 4) *Production and evaluation of multiple prototypes*
- 5) *Final evaluation - survey*



The visualisations

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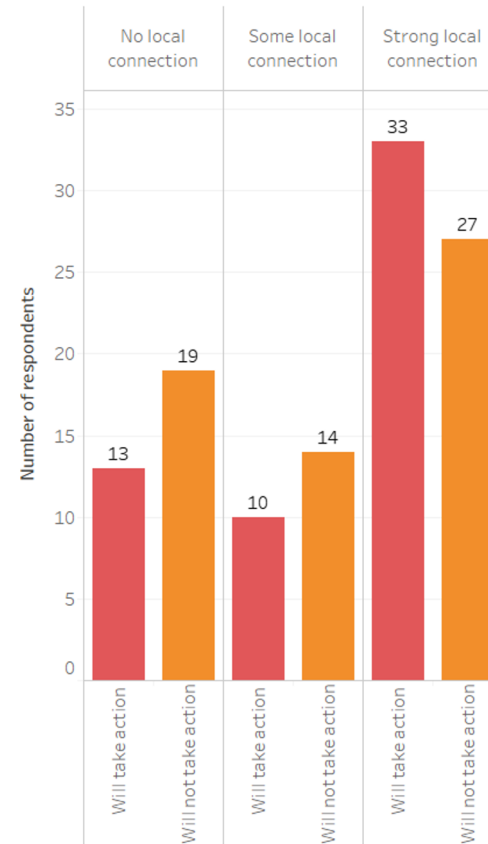
Designing effective data Visualisations For Environmental Crisis
Awareness: The Importance Of Local Data



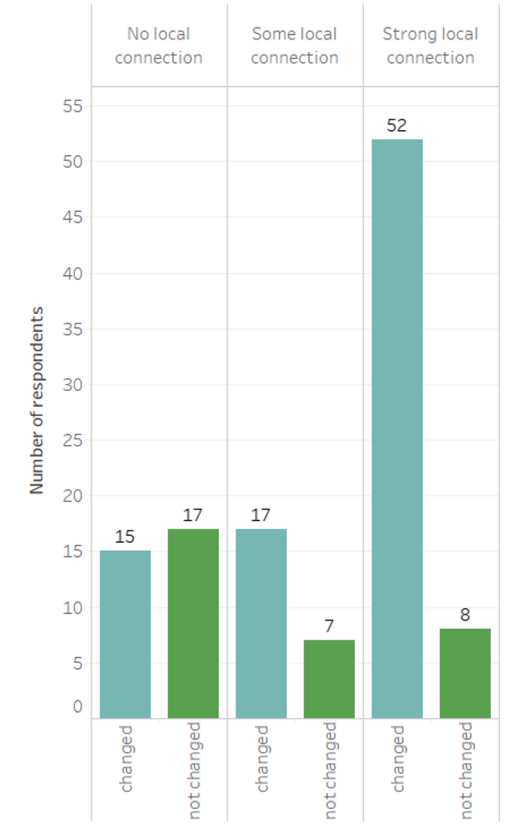
73% Seeing the visualisations changed their minds about environmental issues

49% Will take additional personal/political action around environmental issues

Willingness to take action



Opinion



Findings from design research:

- Process for uncovering locally significant weather data
- Heuristics



Themes for why people changed their minds and
barriers to attitude change

What makes people change their mind?	What stops people from changing their minds?
Seeing it as a serious issue Connection to Sheffield Being exposed to new information Being reminded of what they already know	No connection to Sheffield Not sure what to do Already doing lots Lack of time Already aware Don't live in Sheffield Personal action will make little difference Government could do more Don't care Other issues are more serious



Limitations

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Conclusions

Further research

