

Merged Futures

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Digital Learning Across Boundaries

*Using technologies to support changemaking
in an international context*



Dr Helen Caldwell, Dr Emma Whewell, Grant Malloch, Beth Garrett

University of Northampton.



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Aims and Objectives

Two key themes:

Digital making

+

Changemaking



To introduce our international technology-based project



To present the aims of the project



To demonstrate ways the technology has been used

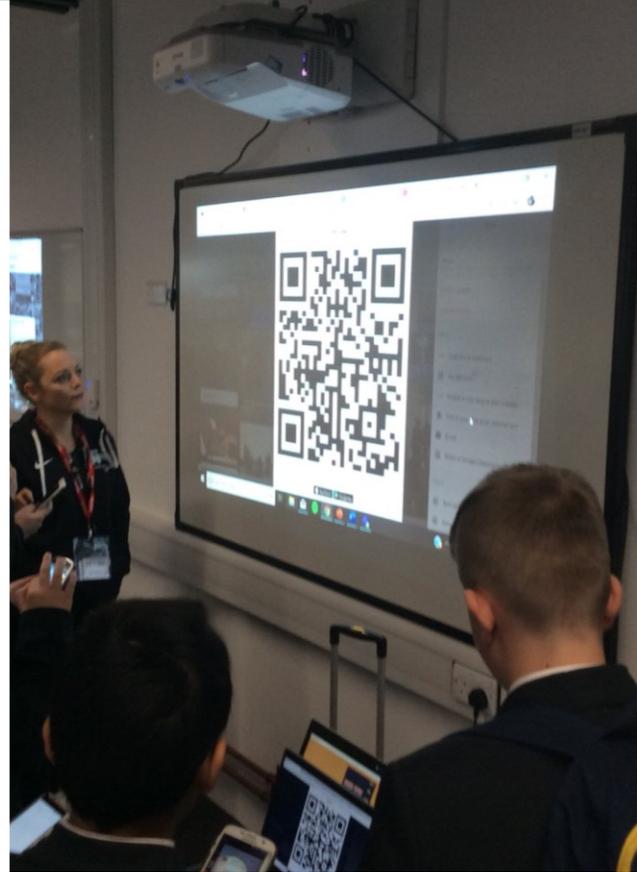
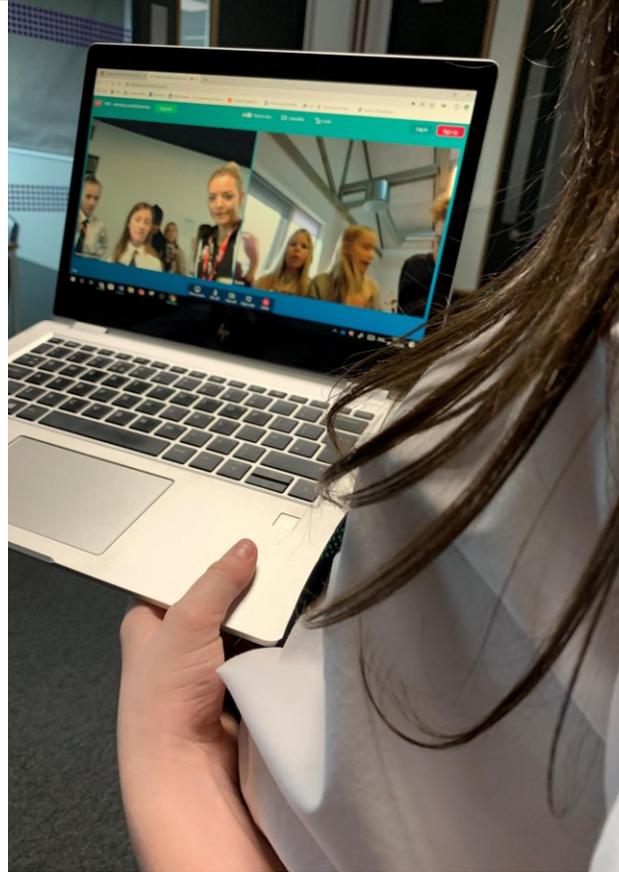


To share project findings

Background to the project



How did it all begin?



Using tech for international collaboration

Exchanging digital artefacts

- Keynote AR animated GIFs
- AR art with EyeJack app
- Google Earth VR
- Sharing 360 images and videos of our environments
- CoSpaces
- Roundme: making 360 virtual tours





CoSpaces

Types of technology



BUILD YOUR OWN
TECH



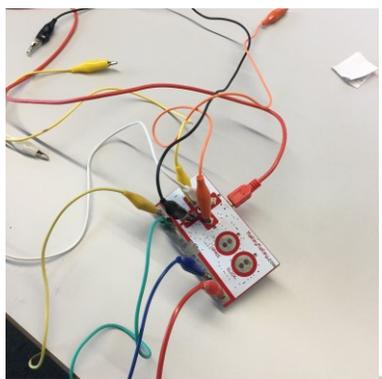
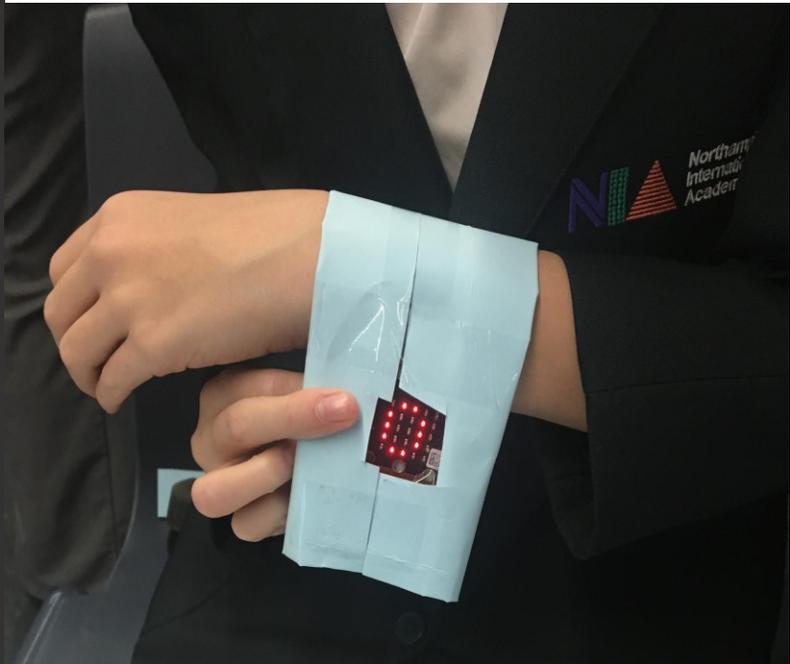
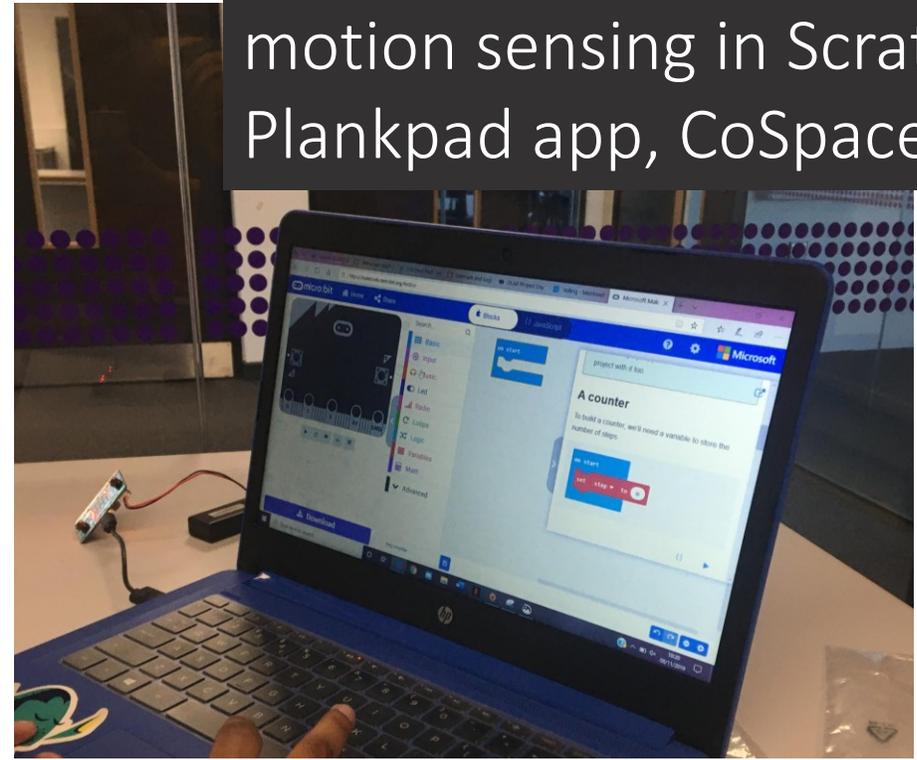
AUGMENTED
REALITY



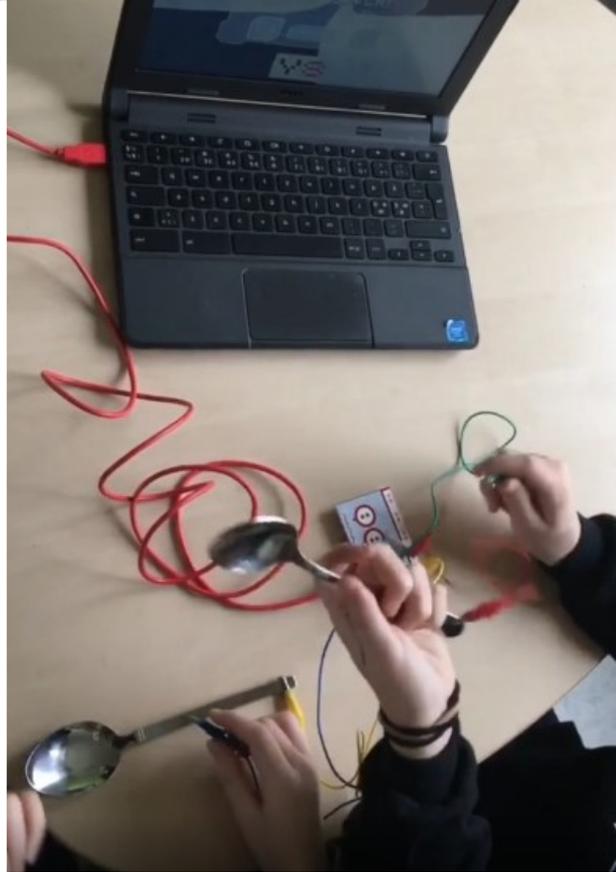
VIRTUAL REALITY

Build your own tech

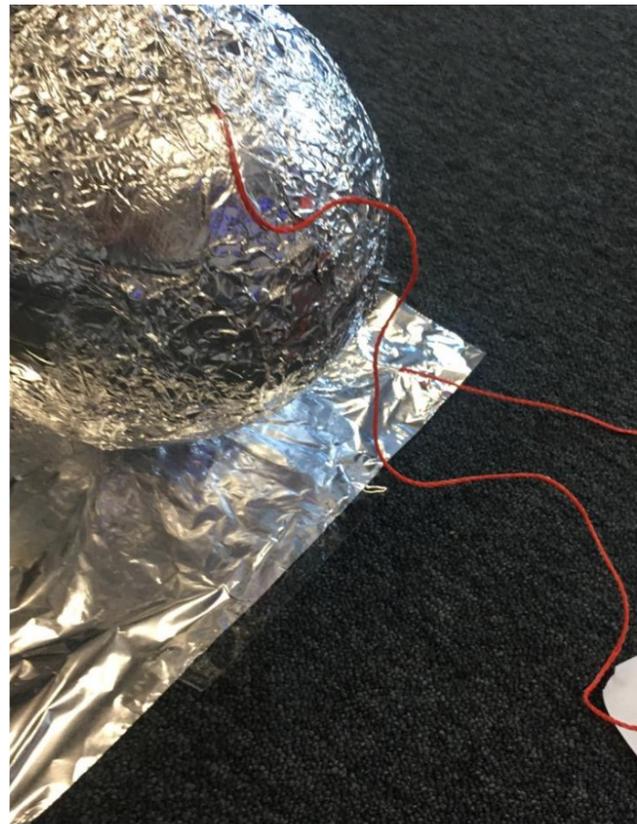
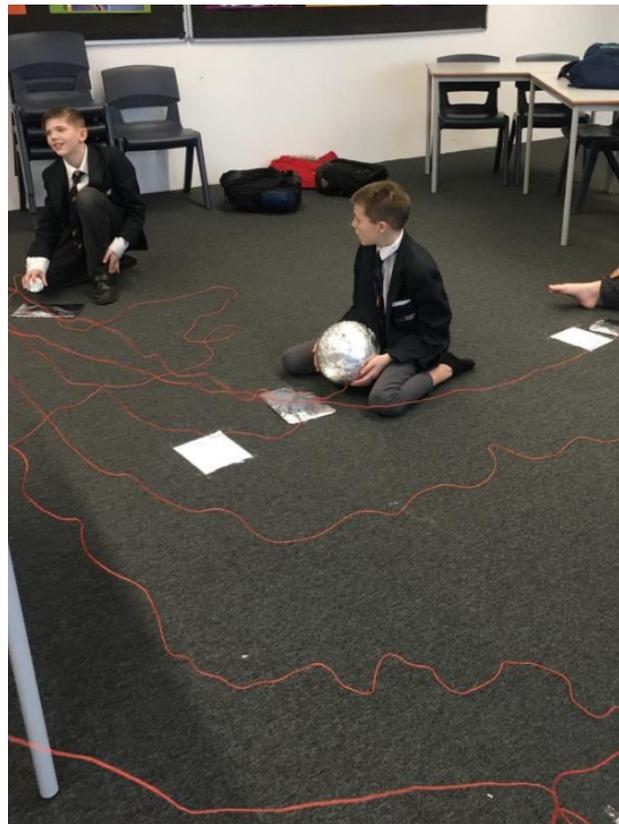
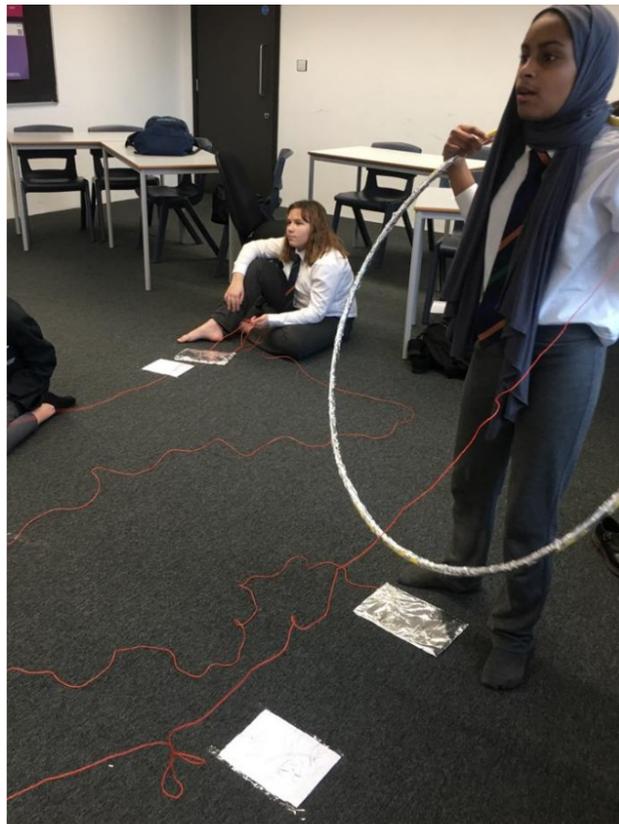
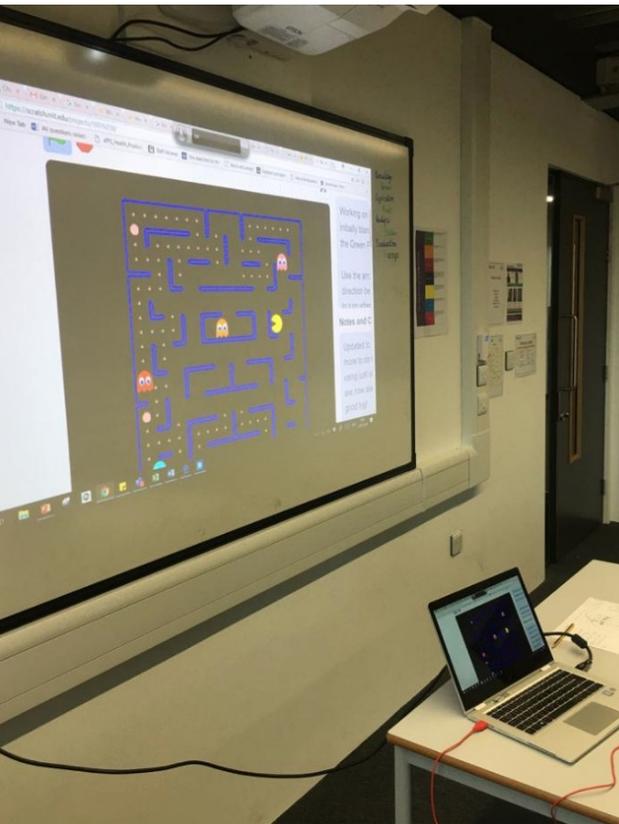
Microbit, Makey Makey, motion sensing in Scratch, Plankpad app, CoSpaces



Designing exergames



- Makey Makey games
- Football video sensing game in Scratch
- Virtual reality table tennis
- Plankpad VR game
- Basketball coaching videos in VR
- Explore an environment with Cardboard Camera app
- Microbit and Scratch remix of a balance board challenge



Pac-man Makey Makey game

Prototyping an innovative solution



HTC Vive with Tiltbrush,
Google Blocks, Google
Poly, CoSpaces

Crossing physical boundaries final challenge:

Design a prototype digital artefact that draws from artificial realities to stimulate physical activity and addresses the issue of young people's addiction to online games.



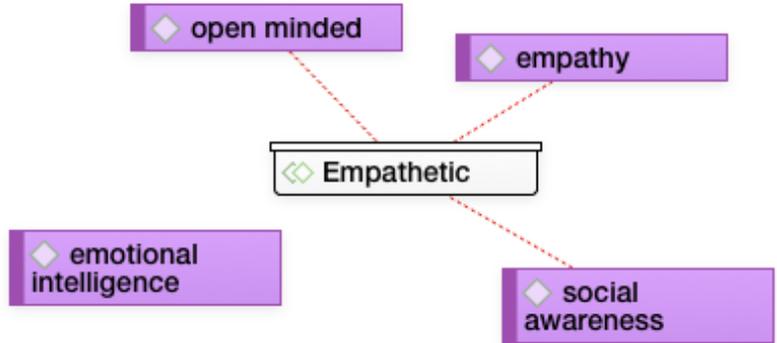
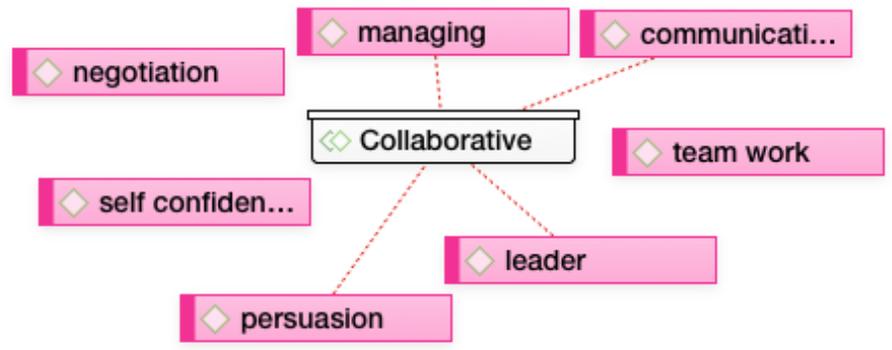
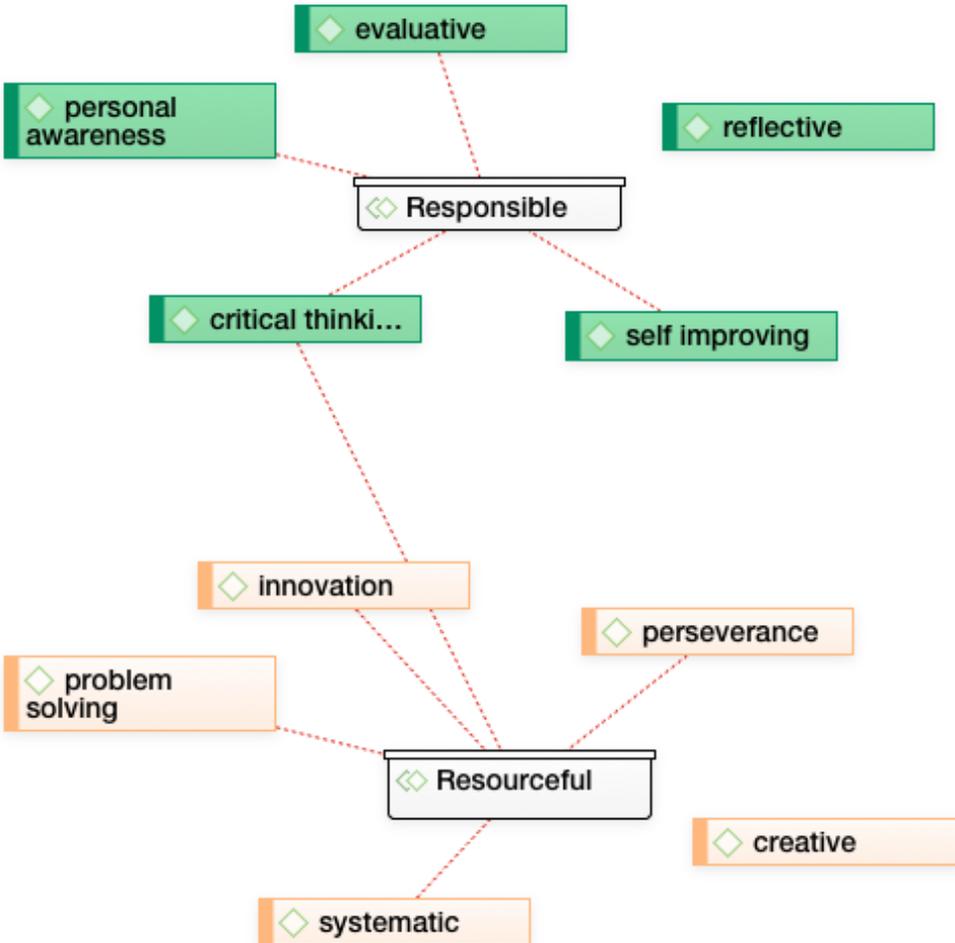
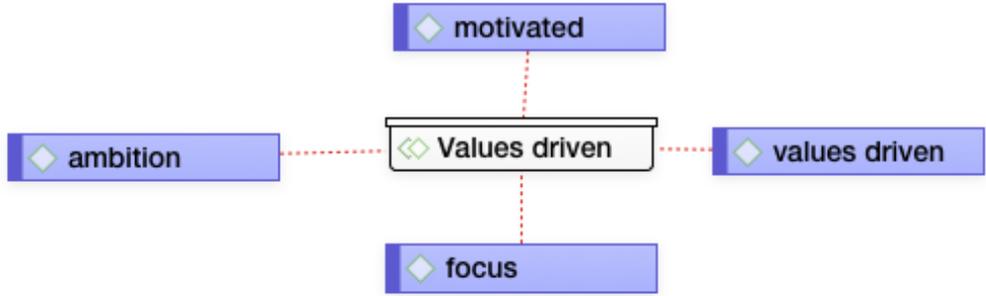
Research focus

How is technology-supported changemaking demonstrated in practice by student teachers and pupils?

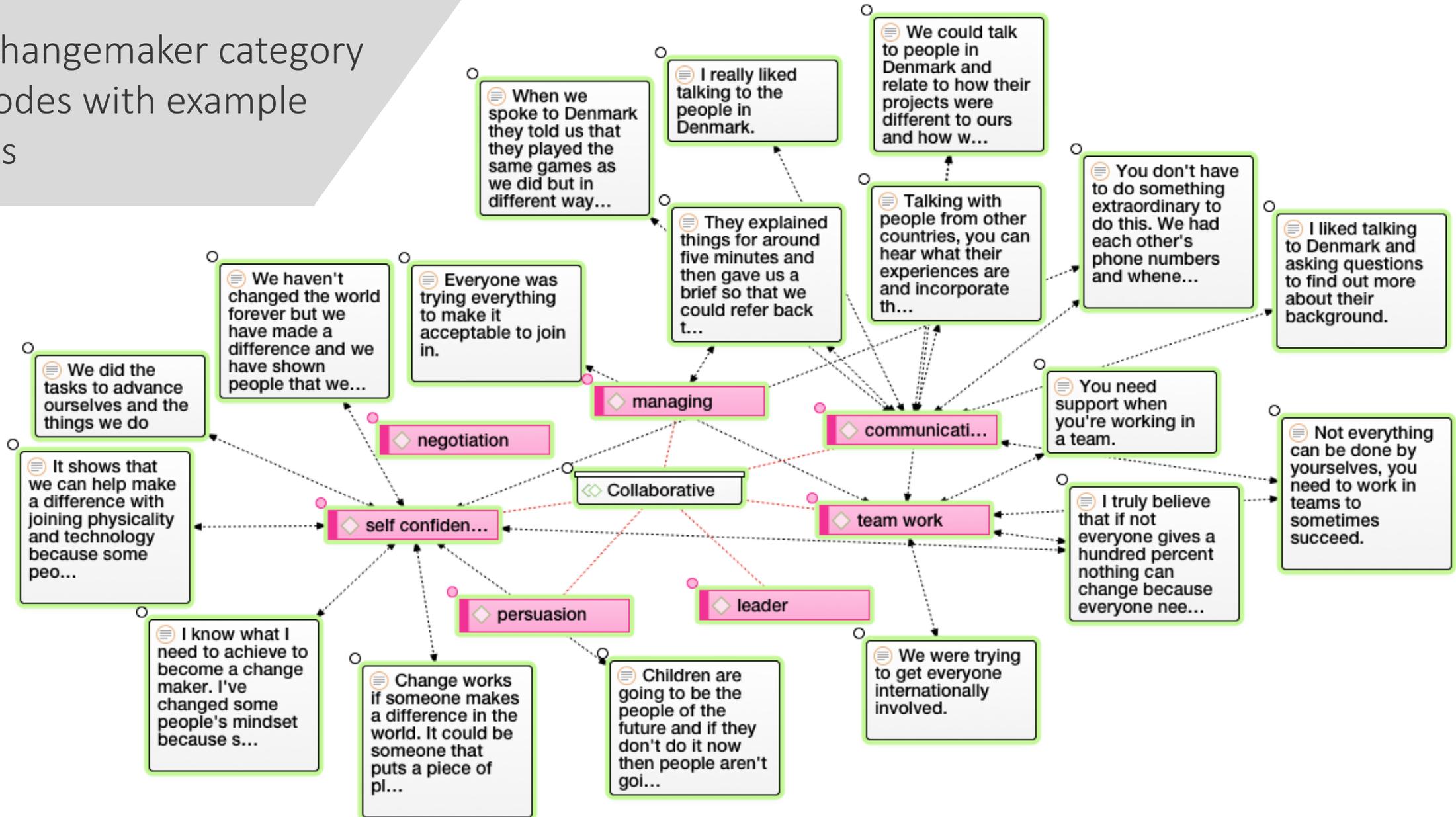
- Understanding the process of changemaking
- Evidence of the development of changemaker attributes
- Evidence of empathy and intercultural awareness

CONCEPT	CATEGORIES	FREQUENCY	QUOTES
Changemaker attributes	Responsible, collaborative, resourceful, empathic, values drive	total 246 positive 230 negative 16	'We haven't changed the world forever, but we have made a difference and we have shown people that we can help with the future'
Intercultural awareness	Sensitivity, transfer of skills, social conscience, globally aware, curious	total 359 positive 340 negative 19	'Talking to other countries was a good idea because it lets them see what we do in our country and what they do in their country so we can watch how other countries compare to ours. Seeing how they are doing their tasks will help us to understand how we can do ours better'

Changemaker Attributes



One changemaker category and codes with example quotes



Emerging findings

Data suggests that AR and VR can be used to develop changemaking attributes and an understanding of the changemaker process:

'I think we have done changemaking because it shows that we can also help make a difference by joining together physicality and technology.'

Children demonstrated a range of skills associated with technology and changemaking. They could articulate the skills they had developed and the various benefits and challenges that these bring.

'There's so much more to technology than just tapping games. It can motivate you to help with your health.'

Intercultural awareness was demonstrated through a commitment to explore settings and solutions, empathise with their international peers and offer culturally sensitive prototypes:

'Using simple things like your phone or VR headset allows you to experience things in the world and understand more of the world.'



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PGCE Top-Up

<https://www.northampton.ac.uk/courses/pgce-topup/>

Contact helen.caldwell@northampton.ac.uk

Questions?



Contact details

@DLABErasmus, @HelenCaldwel,
@UoNPEemma, @brgarrett,
@GrantMalloch

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