Socio-materiality of trust: co-design with a resource limited community organisation
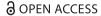
Rachel Elizabeth Clarke, Jo Briggs, Andrea Armstrong, Alistair MacDonald, John Vines, Emma Flynn & Karen Salt

Published online: 05 Jul 2019.

Submit your article to this journal ☑

Article views: 1702

View related articles ☑

View Crossmark data ☑

Citing articles: 1 View citing articles ☑

Socio-materiality of trust: co-design with a resource limited community organisation

Rachel Elizabeth Clarke[a], Jo Briggs[a], Andrea Armstrong[b], Alistair MacDonald[c], John Vines[a], Emma Flynn[d] and Karen Salt[e]

[a]Faculty of Arts Design and Social Sciences, School of Design, Northumbria University, Newcastle upon Tyne, UK; [b]Department of Geography, Durham University, Durham, UK; [c]Maker Space, Newcastle upon Tyne, UK; [d]Department of Psychology, Queen's University Belfast, Belfast, UK; [e]School of Cultures, Languages and Area Studies, University of Nottingham, Nottingham, UK

ABSTRACT

Trust is an essential if often implicit aspect of co-design particularly when working in community-based, political and sensitive settings. Current co-design literature, however, remains fairly limited focusing on interactions between people as primary agents of trust. Drawing on research conducted with a poverty alleviation charity based in the UK, we illustrate how trust and distrust can also be mediated through material resources used in the co-design process. The paper highlights the significance of materials in negotiating the interdependencies of trust, in how distrust can be leveraged and trust can be supported through sensitive socio-material exchange conducted with resource limited community organisations.

1. Introduction

Trust is a significant defining feature in the history and politics of human-centred, participatory, and co-design (Arnstein 1969; Bratteteig and Wagner 2012; Robertson and Simonsen 2012). It can support decision-making and distributions of power, equitable collaboration and interpersonal exchange essential for sustainable impact (Hillgren, Seravalli, and Emilson 2011; Light 2010; Pirinen 2016; Ssozi-Mugarura, Blake, and Rivett 2017; Warwick 2017; Yee and White 2015). Where a rational assessment of a situation is difficult and potential outcomes are unknown, trust can also facilitate action despite uncertainty, a common concern in co-design work oriented towards non-reductive approaches to societal challenges (Akama 2015; Akama, Pink, and Sumartojo 2018; DiSalvo et al. 2011; Manzini 2015). Relevant for co-design is how sociological literature frames trust as enabling people to commit and engage creatively while generating risk and vulnerability (Barbalet 2009; Giddens 1994; Luhmann 1979; Mollering 2013). While trust is often considered vital for beneficial societal relations and action, understanding distrust in institutions associated with access to material resources (Arnstein 1969; Botsman 2017; Clayton, Donovan, and Merchant 2015; Withers 2017) and within community-based and participatory research may also be

---

useful to enable critical reflection and material sensitivity in design (Akama and Ivanka 2010; Light and Akama 2012).

This article aims to illustrate and advance understanding of how trust and distrust can be mediated, not only through interpersonal relationships but through material resources. We specifically focus on co-design with community-run non-profit, third-sector and charitable organisations that address material inequity and poverty among local populations. Such organisations, while contending with austerity measures, are increasingly devising creative ways of making best use of shrinking resources (Clayton, Donovan, and Merchant 2015). It is therefore timely to consider socio-materiality within co-design in relation to the significance of trust in these contexts.

In this paper, we summarise how co-design literature currently positions trust, both between researchers and stakeholders and between stakeholders themselves. We contribute a co-design case study with a poverty alleviation charity which, for the purposes of anonymity, we call Flourish and ask; how do socio-material aspects of co-design workshop processes influence trust and how does this impact on an organisation's subsequent actions?

2. Building trust between co-design researchers and partners

2.1. Trust gives designers permission to design

Design researchers have explicitly foregrounded trust building with organisations as a form of 'securing' (Light 2010, 185) or granting permission before designing begins (Warwick 2017). Trust can be performed through benevolent acts such as volunteering (Warwick 2017) and design researchers describe processes of 'reconcil(ing) divergent goals', establishing 'mutual value' (Pirinen 2016, 39), consensus building (Holt 2015), defining problems together (Lee 2008), alignment and recognition of differing expertise (Yee and White 2015). Negotiations take place prior to any design as an essential component of trust building, but actual design work is described in terms of empathy, exploration, criticality, provocation and facilitation that challenges existing assumptions. These positions imply that design processes only take place once trust is already established. Trust-building is, therefore, a vital initial step in designing with organisations and a prerequisite for enabling longer-term impact (Yee and White 2015).

2.2. Trust through informal conversations and legacies of distrust

In more informal community groups, trust between researchers and community members is often described as pro-social behaviour, where researchers engage in community conversations to establish relationships. Such conversations, while often considered outside formal research (Le Dantec and Fox 2015; Ssozi-Mugarura, Blake, and Rivett 2017), are necessary to understanding community networks, including any legacies of distrust that may need to be renegotiated or repaired (Light and Akama 2012). Le Dantec and Fox (2015) for instance recognised how they were positioned as outsiders in their attempts to work with a disenfranchised black African-American community in the US. Their encounters highlighted huge discrepancies in access to material resources within the community and also feelings of negativity about previous university research

that positioned the community as 'research subjects' and 'undesirable neighbors' (ibid 1351).

While distrust can be considered undesirable within design research, in that it can inhibit action (Pirinen 2016), or undermine ongoing collaborative partnerships (Lee 2008), it can also elicit critical reflection. Indeed, distrust can help provoke reflection on design researchers' roles (Lee 2008), and ensure that design approaches are appropriately reconfigured (Light and Akama 2012). This is particularly pertinent when working with people experiencing limited or precarious access to information or other resources (Akama and Ivanka 2010; Le Dantec and Fox 2015). For example, awareness of a group's distrust in local services informed how Light and Akama (2012) sought to make a 'good impression – both as people to be trusted and able to make a contribution to the wellbeing of the locality' (ibid 68). The researchers purposively differentiated and distanced themselves from officials deemed to have failed the community, a familiar strategy when involving people experiencing challenge or oppression in participatory research.

Hillgren, Seravalli, and Emilson (2011) however also discuss how design researchers themselves can also be a core resource for demonstrating and mediating trust when its presence is fragile. They describe how design researchers supported relationship building by ensuring ongoing reliable personal contact and communications with and between refugees, children and municipalities in Sweden. Physically being there enabled trust to transfer by association, 'lending some of our credibility as university researchers' to the refugees (ibid 179) and enabling long-term relationships.

2.3. Building trust through creative co-production

Material design processes and methods are also perceived to be important in trust building by challenging particular points of view within organisations through 'making things with others' (Pirinen 2016, 39–40). Physical manipulation of material prompts can invite reflection and discussion on existing situations and possible futures through maintaining provisionality and openness that can resonate with a group's emerging awareness of potential future actions to be taken (Pirinen 2016).

However, the use of specific material resources can also make explicit and reinforce differences and power structures. Bratteteig and Wagner (2012) caution how materiality can also close down decision-making by making possibilities 'irreversible' (ibid: 49). In their participatory design work, between residents and city planners, they highlight how material decision-making asserted power granting unwitting trust to the expertise associated with the planning professionals.

Gaudion et al. (2015) highlight the use of a wide variety of materials and engagement methods (e.g. involving food and cooking) in forming positive trusting relationships between all participants in their work with autistic adults and a network of carers (ibid). They describe how trust building is enabled by showing empathy with stakeholders through the use of a variety of materials and activities, but that these approaches can prompt tensions for expert carers, who may question the purposes of more open and playful forms of engagement associated with design.

Experience-Based Design approaches, such as sharing stories and creating 'emotional maps', were used in the re-development of a UK outpatient facility (Bowen et al. 2013,

241) helping to facilitate trust and rapport, 'creat(ing) alliances for change between patients and staff' (ibid, 241) that enabled different perspectives to emerge. Others also promote culturally adapting traditional methods and materials, such as context mapping, to specifically address the social significance of interpersonal trust in different cultures (van Rijn et al. 2006).

These examples emphasise how trust can also be enabled through designing shared material resources tailored to or co-designed with specific groups. These activities enable contextually sensitive group understandings, empathy and communication.

2.4. Trust by making visible and mediating the invisible

Reporting of co-design projects that make tangible or visible particular infrastructures tends towards operationalising trust in terms of accountability and transparency. Trust here might be designed for or designed into the research process, through '"making visible", what is not visible in itself' (Manzini 2015, 174), e.g. organisational structures that impact on the everyday work that people do. These 'material means' function as 'communicative artifacts' (174) that make structures and work understandable, helping to build trust through reputation and visibility of what is achieved. Material artefacts that aim to build trust between communities and individuals working towards a shared goal are considered particularly significant where trust based on historical partnerships or familiar shared values cannot be taken for granted (Manzini 2015).

For instance in co-design for fire preparedness (Akama and Ivanka 2010), designers used plastic toys and paper maps as 'playful triggers' (ibid, 11) to represent networks and encourage greater awareness and trust in local knowledge. Ssozi-Mugarura, Blake, and Rivett (2017) further report how trust functioned through recognising the interdependencies of agents responsible for water management in their co-design of a shared technical system in rural Uganda. The aim of the system was to make visible the nature of these interdependencies across land owners, businesses, farmers and communities who made use of different parts of the river. These aspects of trust building are focused on co-design work that draws attention to the taken-for-granted work and knowledge, building shared understandings across groups of people.

2.5. Summary: trust in co-design

Our overview shows how co-design literature currently positions trust as facilitated through four main practices, formal meetings that help grant permission, informal conversations in response to distrust, co-creation and material-making and through communication artefacts, making transparent and visible particular kinds of work. The purpose of building trust is also considered not only important for building relationships between co-design researchers, participants or stakeholders but also between stakeholders themselves, whether they are considered part of the same community or working across differences. While one study makes trust the object of enquiry focusing on interpersonal relations (Warwick 2017), the remaining studies only briefly mention trust as a small component of co-design activity. In the following section, we aim to expand current understandings of trust within co-design by introducing a case study with a community organisation, Flourish, exploring the socio-materialities of trust.

3. Negotiating new partnerships and approaches with flourish

Our approach to understanding trust was informed by our interdisciplinary commitments grounded in Participatory Design, Participatory Action Research (PAR) and ethnography, involving researchers from Design and Human Geography. We were working across a nexus of practical concerns[1] guided by supporting Flourish's ongoing coordinated action around austerity measures and our research into dynamic trust-related processes in community-based co-design. We approached our community partner Flourish through an existing relationship with the PAR researcher.

As a resource limited community organisation that had been multiply affected by austerity measures in the UK, Flourish staff and voluntary members were seeking to alleviate material inequity and poverty for people in the local community. This included giving those on low-incomes, unemployment and sickness benefits access to alternative resources, such as food banks or credit union loans. As a community-run non-profit organisation they were also facing reduced income from UK government and non-government grants, just as demand from local families and individuals, due to government service cuts associated with austerity was increasing. As such, much of their work was oriented towards both supporting people experiencing poverty and to mobilise members, business leaders and local government towards alternative approaches to addressing UK austerity measures. These were important considerations for our work, as understanding resource limitations within the organisation and the wider community determined that we consider trust dynamics not just interpersonally and but also materially.

3.1. Research-stakeholder meetings, interviews and workshops

In October 2016 our PAR researcher and one of the design researchers met with Flourish staff and volunteers to discuss potential co-research into the community-based trust. Because of the established relationship, discussions quickly turned to the details of working together. Flourish suggested framing activities around current projects they were engaged in to address negative impacts of benefit sanctions (where social benefit payments are delayed), potential ways to advocate for policy change, and the organisation's nascent work to establish a Poverty Truth Commission[2] (PTC). Over subsequent months the PAR researcher conducted semi-structured interviews with staff members and volunteers, specifically to develop insights into individuals' perceptions and experiences of trust. Meanwhile, two design researchers worked with Tina, the manager of Flourish, to design three half-day workshops. These subsequently took place between January and May 2017.

Early PAR interviews revealed that members of Flourish were cautious and somewhat suspicious of us as researchers, yet keen to explore how they might benefit from involvement in the research. This perception was rooted in the inequality they had experienced in a previous engagement with another university and perceived vulnerabilities around disclosing personal information. In addition, Flourish's staff felt increasingly challenged in their ability to deliver services to the increasing number of people seeking help because of unemployment, illness, long-term disability and low income. Mindful of these concerns, we discussed ways that we could speak most

directly to their collective interests. Together, we devised three workshops to: 1) locate existing trusting relationships within the community, 2) envision a collective action, and 3) identify potential partners and how to build relationships with them. Eighteen people attended the first workshop, and six of those attended each of the two subsequent workshops. A group reflection session was run to evaluate the process and to capture further insights (see Table 1).

Flourish's manager, Tina, had little involvement in the design of the first session but was very involved in its delivery on the day. This led to her increased input in the second and third workshops, as ideas and material resources were exchanged with her in meetings and via email, enabling further adaptation before each session. The design researchers focused on steering activities towards addressing the overall aim (locating trust, envisioning action, identifying and approaching partners) of each activity, while encouraging participation in various making activities. The exchanges and subsequent relationships built were convivial and as co-design researchers, we aimed to facilitate open and supportive in-depth discussions within the group. Sessions were audio recorded, transcribed and anonymised and fieldnotes written by the first author after each session. Workshops were also selectively photographed and anonymised. Three short reports were also written, one after each session, and shared with Flourish to capture insights and as prompts for discussion in subsequent meetings.

3.2. Workshop 1: locating community trust

Participants engaged in an 'holistic mapping exercise' using a 'Community Conversational' design tool (Johnson et al. 2017), a turn-taking board game that encourages conversations on emerging local issues. Following this, the design and PAR researchers conducted a thematic analysis (Braun and Clarke 2006) on audio data from this workshop to explore trust-related perspectives towards particular people or institutions. Analysis identified three broad areas of concern: community dis/connections, un/employment, digital technologies and media.

3.3. Workshop 2: envisioning

Researchers selected indicative quotes from across the three themes to present back as statements to the group to prompt further reflection and discussion. These expressed a range of perspectives around issues of trust and distrust. Groups were invited to discuss and classify the statements according to their perceived impact on issues of poverty (Figure 1, left).

After this, an envisioning exercise (Figure 1, right) invited groups to imagine winning an international award for their (fictional) PTC, and to design a speculative newspaper story from 2020. The use of a newspaper format here connected the speculation to a familiar media vocabulary the group could connect to and a scenario they could imagine themselves into with ease (see Auger 2013; Blythe et al. 2016; Clarke et al. 2016). Each group ideated and composed short news articles, fleshing out how they had achieved their goals. As inspiration, we circulated printed summaries of creative public art interventions (e.g. Jeremy Deller) to exemplify and seed alternative ideas around novel forms of public demonstration.[3]

Table 1. Timeline of main project activities and attendees.

Date			Meetings, interviews, workshops and workshop activities	Attendees
Throughout			**Interviews** with PAR researcher, Flourish staff and volunteers	Manager: *Tina* Project Worker: *Cara* Volunteers: *Christine, Darren, Paul, Sally, Lisa, Sharon*
2016	Oct		**Meeting** to scope workshop series and agree focus.	*Tina, Christine* 2 researchers
	Dec		**Meeting** to finalise details of workshops.	*Tina* 3 researchers
2017	Jan		**Workshop 1:** *Locating community trust* 'Community Conversational' game (Johnson et al. 2017): talk on local issues. Quotes from this audio data were selected by researchers to take forward to workshop 2	*Tina, Cara, Darren, Paul, Sally, Lisa, Christine* 11 community members 3 researchers
	Feb		**Meeting** to scope 2nd workshop	*Tina* 2 researchers
	Mar		**Workshop 2:** *Envisioning* 1. Target analysis using quotes from workshop 1 2. Newspaper envisioning using example of art activism 3. Presentation of Newspapers to group and vote on ideas	*Tina, Cara, Darren, Paul, Sally, Lisa* 4 researchers
	Apr		**Meeting** to scope 3rd workshop	*Tina* 2 researchers
	May		**Workshop 3:** *Building new partnerships* 1. Mapping networks of trust organisations and people 2. 'Persona building', annotated clothing and role-play to scope future partners 3. Cake-making to discuss qualities of trust	*Tina, Cara, Darren, Paul, Sally, Lisa* 2 researchers
	Jun		**Group reflection questions** 1. What do you remember most about taking part in the workshops? 2. Was there anything new that you learnt? 3. Has the research influenced you or your organisation? If so how? 4. How much do you feel you trusted the people or resources involved? If so in what way?	*Tina, Cara, Darren, Paul, Sally, Lisa* 1 researcher

Figure 1. Workshop 2 mapping quotes and envisioning exercise with newspaper template.

3.4. Workshop 3: building new partnerships

In this final workshop, we focused on identifying ways of mobilising action towards forming the PTC. Tina had earlier expressed practical concerns on who to involve and how they could be approached. We devised a networks of trust activity, mapping existing and potential relationships across a continuum of trust (Figure 2, top left), informed by our analysis of interviews and trust literature. We invited the group to identify influential people from business or local services who could be useful in helping to establish and support the PTC. From the influential people identified we developed personas using clothing to engage in collective role play to help stimulate discussion and imagination on who those people were and how the group could engage them in their cause.

To extend this discussion we also used food to encourage the group to reflect on its potential vital role in facilitating enjoyable ways of sharing time together with the potential to break down more formal or hierarchical barriers. In responding to the significance of collective food sharing in previous sessions (i.e. a good lunch was always provided and appreciated by volunteers) we then created cakes as imagined gifts for the influential people the group were interested in engaging with. Using single words written on postcards to articulate different facets or 'ingredients' of trust next to the cakes, we used these to prompt further discussion on what participants felt were

Figure 2. Workshop 3 mapping potential partners, costume annotation, role play and cake making.

important for building their future relationships with potential partners as part of the PTC (Figure 2, bottom right).

3.5. Group reflection

A final reflective session in June with Flourish staff and volunteers captured perceptions and experiences of the project. We asked the group to discuss the nature and role of trust across the trajectory of our shared research, with particular reference to the institutions (universities), people, materials and processes involved. We asked what was most memorable about their participation, if they had learnt anything new, if the workshops had influenced them to do anything differently and how and if they felt they trusted the people and resources as part of the sessions. Our aim here was both to pragmatically broaden and also anchor discussion on tangible aspects of trust across the project and also in relation to specific processes and materials used.

4. Findings: designed and performed socio-materialities of trust

4.1. Data analysis

To enrich our vocabulary on socio-material aspects of trust we interpreted the data through discourse analysis (Rose 2016). We chose this approach to support our understanding across a diverse data set, to consider how everyday speech and materials in the workshops supported particular kinds of socio-material engagement relevant for trust building or trust hindering. Rather than attempting to quantitatively measure trust, which is perceived to diminish an understanding of its social, emotional and cultural significance (Möllering 2013), we drew from the literature on qualitative understandings of trust as contextual, precarious and changing over time (Barbalet 2009).

To support more materially oriented understandings, our analysis was also informed by recent work on the (re)turn to materiality in design and social sciences. Knutz, Markussen, and Thomsen (2018) discuss how materiality can be understood as a process of negotiated meaning that configures particular kinds of relations and distributions of power. Storni et al. (2015) describe 'designing "things" as socio-material assemblies of public concerns and issues that evolve over time' (149). Askins and Pain (2011) focus on the tensions and affects of participation and identity making in how people negotiate material-making.

The first author consolidated the corpus of data including workshop and interview transcripts, photographs field notes from meetings, workshop sessions and email correspondence. These were structured chronologically and annotated with additional written reflections and observations from the second and third authors before a preliminary close-reading. To familiarise ourselves with the diverse data-set initial coding focused on a deductive approach drawn from the existing understanding of trust in the current co-design literature. Further coding focused on verbal articulations of trust associated with expectations, embodied interactions of confidence and creative commitment, and engagement despite the uncertainty of outcome, all of which are potential indicators of sustained trust building (Barbalet 2009). We also paid attention to material tensions (Askins and Pain 2011) across design materials brought to sessions,

and the new artefacts that were made and used by participants beyond the workshops. Coding of data was iteratively developed between the first, second and third authors in response to existing literature.

We report on three areas that further contribute to current understandings of trust in co-design particularly relevant in resource limited community organisations; trust through questioning professional resources, through diverse materialities and through material repurposing.

4.2. Trust and questioning professional material resources

As an organisation and individuals, Flourish staff and members were reliant on the resources and funds administered by others. This led to persistent expressions of feeling let down by services delivered by large organisations. Trust, therefore, was perceived to be not only built through interpersonal relationships with specific people, but was also informed by prior experiences of institutions, expectations of what professionals within those institutions could do for them and what resources they could leverage.

For instance, while Flourish had prior experience of working with one of our respective research institutions our team represented multiple different research institutions. On several occasions, Tina expressed ambivalent expectations, based on her negative prior experiences, relating to the lack of practical and material benefits of research. She commented on the *'self-interest'* she associated with the academic production of papers and books. Tina then compared this to the more recent co-design process where data collected in interviews were presented back as anonymised printed statements in the second workshop, and our ongoing delivery of short reports. This she perceived as more equitable, saying Flourish *'got a lot of the data back so we could see it'*. Not only did this prompt reflection in the second session, but Flourish later recycled the quotes for use in their own public event to publicise and build support for their proposed PTC. Cara recognised how *'everything was made clear so everyone was fully aware'*, while Paul appreciated the ease with which he felt involved, due to the openness of the sessions in comparison to other academic research.

Trust between participants and researchers was therefore perceived to be built on openness, if also grounded in professional research capabilities involving sharing material and printed resources across different processes and sessions. Critically important was involving Tina in the design of sessions, communicating through providing printed provisional examples of what would happen during the process, and providing opportunities for *'information'* to be reviewed and physically repurposed. This appeared to be particularly important for Tina in relation to prior research experiences that had privileged academic paper writing.

Bratteteig and Wagner (2012) highlight how trust can be an unwitting 'delegation of power to people who have the expertise to solve the problem competently' (ibid, 47). Yet professional competence and reliability were questioned and distrust was articulated throughout the design process. Members of Flourish consistently underlined how certain levels of professional capability in clarity, honesty and transparency about what would happen next was significant for them in building trust. These elements were expressed in the first mapping workshop and in the third workshop in mapping their

trust network and potential partners more generally. But this also became important in understanding the potential value of the materiality of the co-design research.

4.3. Supporting group trust through diverse materialities

In co-design literature, there has previously been an emphasis on describing methods and approaches in relation to supporting interpersonal trust regardless of the specificities of social infrastructure or hierarchies. As highlighted by Gaudian et al. (2015) and Bowen et al. (2013), social differences may need to be addressed more materially through methods that can facilitate greater empathy and trust between designers and those who may experience varying vulnerabilities, such as people with disabilities, ageing populations, or different social positions. We noticed differences in how individuals engaged with activities and paid particular attention to specific activities where this was most pronounced; in the envisioning newspaper exercise and cake making.

In the envisioning exercise Paul, Cara, and Darren worked on two separate newspapers while Tina, Lisa and Sally worked together to generate ideas for a future PTC event. As design researchers, we had steered the previous activity by facilitating each table, discussing and organising quotes with the group. The envisioning newspaper exercise required participants to respond to a series of structured questions to aid their imagination of a potential desirable future and as facilitators we wanted to step back to give each group time and space to think and discuss their ideas with each other (Figure 3). We distributed large glossy paper newspapers that filled the table, marker pens and a pack of A4 booklets showcasing participatory arts projects, introduced the activity and then stepped back.

In this session, we noticed how Tina vocally expressed an initial lack of confidence in the mastery of a marker pen (*'I can't draw me'*), as she drew on the large glossy newspaper, but her confidence quickly grew as she spent time on drawing. She steered Sally and Lisa, who only contributed to the story content when encouraged and directed by Tina, by asking them to select and crop photographs. Tina's confidence and trust in her own capabilities increased. Meanwhile Sally and Lisa appeared uncertain, only contributing when asked and directed by Tina, and happier to support her in her leadership role.

In comparison, our final workshop, which focused on identifying potential influential PTC members and routes to garnering their involvement, marked a different dynamic. This session was informed initially by Tina's concerns around how to bring

Figure 3. Sally and Tina annotate A4 paper booklets to add to their ideas for a future PTC event during the newspaper envisioning exercise.

Figure 4. Making cakes for future PTC partners. The cakes were then displayed and used as prompts to describe valuable qualities or 'ingredients' of trust that future partners would need to bring to the partnership.

the group of volunteers along in engaging partners outside of their immediate group, and turning ideas into action. The final part of this workshop focused on making cakes, to support Flourish members in articulating the different kinds of trust needed for building relationships with those who could be valuable to their cause. This involved laying out pre-baked cake ingredients, such as flan and pastry cases, sponge bases and brandy snap baskets, with meringues, squirty cream, flavoured creams and sprinkler toppings. Cara, Darren, Sally and Lisa immediately engaged, committing in a hands-on, intensive way (Figure 4). Lisa explored the various contents of the packets, leaning over the tables and sometimes sniffing or carefully tasting ingredients to assess their quality and suitability. She appeared to be in her element crafting her selected materials, while creating something for her identified potential future partner, the manager of a local transport company. This person would appreciate something *'posh and fancy'* she said. Lisa then worked with Sally to choose words to describe the potential qualities or 'ingredients' of trust necessary for building a relationship with this potential partner *'they'd have to have experience of working with business but want to work with us, and that might feel risky if they hadn't done anything like this before, so they'd have to want to do it as well'*. Tina and Paul noticeably disengaged with this activity, with Tina commenting that this was *'much more Lisa's thing, so happy to sit out.'*

Despite the limited engagement from Tina and Paul, in our final reflective discussion, Tina noted the significance of the variety of materials, describing them as *'fun and hands on'*. These qualities were important in building community, knowledge and confidence as a primer for action: *'we've got a lot more ideas and we're a bit stronger as a group and I think we're a bit more prepared for the future.'* Despite uneven and varying participation in the activities, the materials and approaches facilitated diverse and shared engagement, particularly for those with varying degrees of confidence and skill. In turn, this appeared to support trust within the group and in their collective preparations for the future.

4.4. Trust through material repurposing

Co-design literature highlights the significance of aligning with community agendas while also respecting divergent expertise (Yee and White 2015). Flourish's prior research experiences before our project had indeed aligned with the values of the organisation (the earlier research was about devising practical approaches to poverty

alleviation), yet was perceived to be more extractive as it was unclear of the direct personal and organisational benefit. This led Flourish to be more cautious about the overall intentions of new co-design research and what their involvement as an organisation would look like. As Tina described in the final reflection *'We were wary. Why you wanted to do it, what's in it for us?'*

Yet as we returned to their offices after the second workshop, we noticed the envisioning newspaper posters were displayed in the public entrance of their office. During this meeting, Tina also showed us how they had already used one of the ideas in making wrist-bands with a Twitter hashtag to promote their cause, which they also used at a public event. Printed quotes from the workshop had also been repurposed for use at a local event with the general public and local politicians to promote the PTC.

In the final reflection, Cara described how she felt the printed quotes, in particular, had been important in bridging some of the concerns about what would happen to their data. Rather than information being taken away, she saw it as an essential resource in supporting their cause. The data were ' … *personal to us. You could see everyone's anonymous comments but it was good to see it had been taken from the first one (workshop) and, so it was following through.'* Furthermore, more broadly she felt the approach had been *'adapted to what we wanted […]'* and that this had *'more of an effect I suppose, looking back on it, you know, because you were sat there doing it, but when you look back at why we were doing it, [and] the result.'* This process of cumulatively building on each activity was also important for Paul. He highlighted the second workshop as *'engaging, it got you to think about each individual thing and moving from one exercise to another.'*

The 'result' that Cara referred to concerned both the recycling of specific materials and ideas from previous sessions (i.e. printed quotes and boards, ideation booklets, the continuum of trust washing line, personas, cake making). For instance, for Paul the continuum of trust washing line was now displayed in their offices, acting as a reminder that he had little trust in *'95% of the organisations on there and so I don't want to work with them'*. For Tina, however, it was a constant reminder for her to approach powerful people and have *'difficult conversations with [them]'* since *'they are the ones who can influence things and make decisions.'* For Cara and Darren the cake making together was a fun way of starting conversations that Cara felt could be used to *'make things less awkward'* and breaking down barriers when building relationships.

The printed quotes as repurposed from the second workshop provided the vehicle for Tina to practice and then enact those conversations. Tina described how, at a public event in the town centre during local elections, they had set up a stall and asked people *'if you had 30 seconds what would you say to your local MP? … to get people talking we had a board with the quotes on, saying these are what people have said about their community […]. So we asked the (election) candidates to come along at 12 o'clock to read the quotes and see what people had been saying. It was dead informal so people could chat to them.'* For Cara this public-making approach provided a new way to connect people with their cause providing *'quite a different spin on getting people's stories, chatting and conversation.'*

Tina had said she no longer wanted to engage with adversarial testimonials for the PTC as it perpetuated negative representations of *'all these poor people'* further impacting on their constrained situation by limiting future relationships and opportunities.

The newspaper envisioning exercise in particular, she felt, had changed this dynamic as Tina described the following;

> '... when we get together, life is so hard, so horrible, there's a lack of trust so we always focus on the negatives ... this is what's difficult, this is what's hard. Doing that exercise with the (news)paper, we had to put a positive spin on it – focusing on positive ways of reaching that goal, instead of thinking we can't do that. And I think that was a bit of an eye opener ... '

This particular activity appeared to generate a collective confidence and trust within the group around trying something new with belief that they could do it. Most significant was the productive alignment of our trust-related research and Flourish's PTC poverty-alleviation agendas had focused decision-making, and a kind of rehearsal for future action (Binder et al. 2011) initially in the form of the public event.

The material structuring of activities, therefore, proved accessible to Flourish's staff and members (if in different ways and to various extents). The ongoing communication and cumulative sharing of 'data' in material form (as short, regular report updates; or as printed quotes) represented specific and recognisable (albeit anonymised) voices from amongst group. The practical potential for material re-use, including as prompts for reflection, group analysis, and as reminders to broach difficult conversations, and ideas generation, had a further impact beyond the immediate co-design sessions. Furthermore, the recalibrated practice involving a more positive 'spin' facilitated trust building by building confidence within the group through practical material resources suggesting adaptable directions for future action.

5. Discussion: building trust and responding to distrust

Austerity is increasingly associated with a lack of trust in professional experts and institutions (Withers 2017). Community-based organisations that are resource-challenged – by responding to marginalisation and service cuts while their own resources are reduced due to austerity – are seeking ever more collaborative opportunities (Clayton, Donovan, and Merchant 2015). Co-design research can provide tangible support to such organisations, by generating and demonstrating new approaches, insights and validation using material resources towards enabling action. This potentially creates opportunities to explore changes in the dynamics of power associated with unwitting trust in professionals and their potential influence on decision-making through collaboration (Bratteteig and Wagner 2012). More critical understandings of dis/trust (e.g. Withers 2017) involves further evaluation of the impacts of co-design research and close attention to its potential wider affects (Warwick 2017).

In our final discussion, we highlight transferrable insights focusing on our approach for future co-design work seeking to understand and build trusting relations with participants, particularly within resource-constrained community organisations. We do not make generalisable claims since our qualitative approach elicited specific contextual and dynamic aspects of trust with one organisation and a relatively small number of participants. We, therefore, acknowledge limitations in the study in focusing our analysis on particular characterisations of trust articulated through theoretical literature (Barbalet 2009) and on insights gathered and analysed within the research team inherently entangled with the delivery of the sessions. We

could have expanded our insights with additional observational, longitudinal data; but the time, funding and staffing constraints of the study, including increasing demands on Flourish's small management team as they sought to implement actions, meant we were unable to do so.

Despite trust being inherently difficult to understand qualitatively due to its pervasive, contextual and dynamic aspects (Barbalet 2009; Möllering 2013), particularly at a time when there are consistent reports of diminished trust in society (Withers 2017), we have highlighted the value of paying closer attention to trust as more than relationship building and its potential for mediation through materials. We recognise that there is also further value in exploring how such qualitative and analytical approaches can support and enhance sense-making on the dynamics of trust relations, not only between participants and researchers but also between members of organisations to support action in the future. In our final discussion, we consolidate our findings to highlight perspectives on understanding the value of socio-materiality and interdependent trust, and the value of distrust as a critical opportunity to respond more openly through multiple adaptable design materials.

5.1. Socio-materiality and interdependent trust

In attending to the question of how socio-material aspects of co-design could influence aspects of trust and impact on an organisation's subsequent actions, what emerged was the significance of understanding trust interdependently. Barbalet (2009) describes interdependence in trust as bound to the 'trust giver's expectations of the other's future behaviour', its basis is the 'feeling of confidence in another's actions and also a confidence concerning one's own judgement' (ibid 368). Positioning trust in this way highlighted how interpersonal relationships remained significant, from securing permissions to supporting engagement of, and across, diverse participants. However, these were also dependent on prior relationships, experiences and confidence in individual and collective judgement. The PAR researcher, rather than the co-design researchers, were important for bridging and mediating here. Their role highlighted this interdependency necessary to achieve more desirable outcomes with Flourish but also the complexity of previous research relationships not always considered beneficial by Flourish members. Understanding this helped guide our decisions to focus on an assemblage of design materials to support group reflection and action. As a design team, this meant a re-evaluation of what was deemed valuable by Flourish based on surfacing elements of distrust associated with prior research experiences. This then helped to focus and tailor the approach to challenge these expectations and ensure we aligned more with a range of material approaches.

5.2. Socio-materiality as a response to distrust

As researchers, we felt there were many more barriers to building trust than we had originally anticipated. We could not engage in informal conversations, benevolent acts or spend significant amounts of time with our partners as previous research has discussed (Le Dantec and Fox 2015; Warwick 2017). This was partly due to very practical constraints, but also because Flourish stated a desire to only engage as and

when on their own terms. We had to consider not only how participants positioned trust in relation to other organisations, but how they were critical and sceptical of us. We could not be complacent of being trusted just because we were professional experts (Bratetteig and Wagner 2012) and so felt we had to take more care in how we responded very practically and openly. It is therefore doubtful that more significant trusting relationships were built between the co-design researchers and our participants as with longitudinal relationships described by Warwick (2017). Our relationship was very much dependent on our PAR researcher and potential impact would have been limited without their consistent and ongoing input. While initially we took for granted that there was a trusting relationship already established, this did not prevent the impact of the workshop activities supporting Flourish in their future goals.

While distrust can be perceived as undesirable in potentially hindering cooperative relations and action in design (Lee 2008; Pirinen 2016; Yee and White 2015), its articulation in early interviews was significant in enabling a better understanding of how members of Flourish felt let down by others. This presented opportunities for greater critical reflection within the team and ways of doing things differently (Akama and Ivanka 2010; Light and Akama 2012, 2014), particularly in our choice of design activities and materials. We revisited what it was that we were trying to achieve with and through design research and how to make the most of particular materials for those involved. This process helped to reshape the power dynamic of the negotiations as the onus was on the research team to prove their trustworthiness. Doing this formally, through meetings and interviews – rather than informally (as suggested by Le Dantec and Fox 2015; Ssozi-Mugarura, Blake, and Rivett 2017) – and embedding this within the design research process while making tentative insights palpable through materials created opportunities for reflection between researchers and members of Flourish, early on in the process.

Distrust can also be fuelled by greater awareness of material inequities within communities (Arnstein 1969; Le Dantec and Fox 2015). It is therefore important to recognise how material design and flows of resources within design research projects can perpetuate inequities or limit specific identities. Analysis of the data highlighted how using multiple different kinds of materials and supporting personalisation of resources was an important way forward in addressing issues of distrust expressed in response to previous research experiences and institutions. This diversity was a way of keeping open potential possibilities, and to avoid closing down decisions based on our choice of a limited set of design materials (Bratteteig and Wagner 2012). Designing activities to support multiple ideas through these early negotiations proved valuable, demonstrating alternative ways of doing and positioning members with different kinds of agency to contribute to change. This was significantly different than prior research since for Tina in particular it highlighted how it positioned the group as capable of making a difference in their community rather than perpetuating a limited identification of *'poor people'* to be observed and potentially exploited. This was demonstrated in how Flourish then took many of the ideas and resources forward in their future work. Understanding trust socio-materially therefore also highlighted how Flourish co-produced innovative ways to confront challenging issues around building new partners and advocates through cultivating trust in their own capabilities and decision-making capacity. It was however important that the materials designed could serve several

purposes not necessarily defined or anticipated by the research team. In turn, this seemed to help build more positive relationships within and beyond the organisation, by being inclusive to the diverse needs of Flourish's members and enabling a practical recycling for their future work.

6. Conclusion

Trust within co-design has largely focused on interpersonal relationships between designers, researchers and participants within time bound processes and played down the role of material exchange. Contemporary understandings of diminished trust within society associated with austerity, the economic crisis and institutional failures, therefore, requires a re-evaluation of trust, particularly within resource limited organisations. While articulations of distrust can often be perceived as detrimental to cooperation within co-design, our study highlighted that understanding specific experiences of distrust can enable more valuable critical reflection on how to proceed. We chose to respond to issues of distrust by promoting the use of a diversity of materials so as to open up possible avenues for action. This did not necessarily lead to more trust being built between design researchers and participants, but instead led to potential opportunities for more sustainable approaches to building trust as confidence in judgement (Barbalet 2009) within the organisation to take future action. Reflecting on trust as socio-material rather than just interpersonal suggests greater interdependencies within a wider network of relations between people and material flows. While our study had methodological and time-bound limitations, future research should aim to pay attention to the kinds of work particular design resources do both within and beyond the co-design process when responding to issues of trust.

Notes

1. Funder ethics protocols determined that research participants were 18 years and older recruited through community leaders.
2. The Poverty Truth Commissions in the UK are currently organised by the Joseph Rowntree Foundation; see https://www.jrf.org.uk/contact/poverty-truth-commission .
3. Members of Flourish had challenged a government department with testimonials from people experiencing poverty due to unemployment benefit sanctions. The testimonials were disregarded by the department who refused further engagement. Flourish then repositioned their approach by connecting to a national scheme for PTCs.

Acknowledgments

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

Disclosure statement

Funding

References

Akama, Y. 2015. "Being Awake to *Ma*: Designing in Between-Ness as a Way of Becoming With." *Codesign* 11 (3–4): 262–274. doi:10.1080/15710882.2015.1081243.

Akama, Y., S. Pink, and S. Sumartojo. 2018. *Uncertainty and Possibility: New Approaches to Future Making in Design Anthropology*. London: Bloomsbury.

Akama, Y., and T. Ivanka. 2010. "What Community?: Facilitating Awareness of 'Community' through Playful Triggers."In *Proceedings of the 11th Biennial Participatory Design Conference (PDC '10)*. 11–20. New York, NY: ACM. doi:10.1145/1900441.1900444.

Arnstein, S. 1969. "A Ladder of Citizen Participation." *Journal of American Institute of Planners* 34 (5): 216–224. doi:10.1080/01944366908977225.

Askins, K., and R. Pain. 2011. "Contact Zones: Participation, Materiality, and the Messiness of Interaction." *Environment and Planning D: Society and Space* 29 (5): 803–821. doi:10.1068/d11109.

Augur, J. 2013. "Speculative Design: Crafting the Speculation." *Digital Creativity* 24 (1): 11–35. doi:10.1080/14626268.2013.767276.

Barbalet, J. 2009. "A Characterization of Trust, and Its Consequences." *Theory and Society* 38 (4): 367–382. doi:10.1007/s11186-009-9087-3.

Binder, T., E. Brandt, J. Holse, M. Foverskov, S. Olander, and S. L. Yndisegn. 2011. "Living the (Codesign) Lab." Paper presented at the Nordic Design Research Conference 2011, Helsinki.

Blythe, M., K. Andersen, R. Clarke, and P. Wright. 2016. "Anti-Solutionist Strategies: Seriously Silly Design Fiction." In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (CHI '16)*, 4968–4978. New York, NY: ACM. doi: 10.1145/2858036.2858482.

Botsman, R. 2017. *Who Can You Trust? How Technology Brought Us Together and Why It Could Drive Us Apart*. St Ives: Penguin Random House.

Bowen, S., K. McSeveny, E. Lockley, D. Wolstenholme, A. Cobb, and A. Dearden. 2013. "How Was It for You? Experiences of Participatory Design in the UK Health Service." *CoDesign* 9 (4): 230–246. doi:10.1080/15710882.2013.846384.

Bratteteig, T., and I. Wagner. 2012. "Disentangling Power and Decision-Making in Participatory Design." In *Proceedings of the 12th Participatory Design Conference: Research Papers - Volume 1 (PDC '12)*, 41–50. New York, NY: ACM. doi:10.1145/2347635.2347642.

Braun, V., and V. Clarke. 2006. "Using Thematic Analysis in Psychology." *Qualitative Research in Psychology*, 3 (2): 77–101. doi:10.1191/1478088706qp063oa.

Clarke, R., C. Crivellaro, D. Di Mascio, and P. Wright. 2016. "Re-Configuring Participatory Media for Citizen Elders in Urban Planning." In *Proceedings of the 3rd Conference on Media Architecture Biennale (MAB)*, Article 12. New York, NY: ACM. doi: 10.1145/2946803.2946815.

Clayton, J., C. Donovan, and J. Merchant. 2015. "Distancing and Limited Resourcefulness: Third Sector Service Provision under Austerity Localism in the North East of England." *Urban Studies* 53 (4): 723–740. doi:10.1177/0042098014566369.

DiSalvo, C., T. Lodato, L. Fries, B. Schechter, and T. Barnwell. 2011. "The Collective Articulation of Issues as Design Practice." *CoDesign* 7 (3–4): 185–197. doi:10.1080/15710882.2011.630475.

Gaudion, K., A. Hall, J. Myerson, and L. Pellicano. 2015. "A Designer's Approach: How Can Autistic Adults with Learning Disabilities Be Involved in the Design Process?" *CoDesign* 11 (1): 49–69. doi:10.1080/15710882.2014.997829.

Giddens, A. 1994. ""Risk, Trust, Reflexivity." In *Reflexive Methodology*, edited by U. Beck, A. Giddens, and S. Lash, 184–197. Cambridge: Polity Press.

Hillgren, P.-A., A. Seravalli, and A. Emilson. 2011. "Prototyping and Infrastructuring in Design for Social Innovation." *CoDesign* 7 (3–4): 169–183. doi:10.1080/15710882.2011.630474.

Holt, M. 2015. "Transformation of the Aesthetic: Art as Participatory Design." *Design and Culture* 7 (2): 143–165. doi:10.1080/17547075.2015.1051781.

Johnson, I. G., A. MacDonald, J. Manuel, K. Salt, E. Flynn, and J. Vines. 2017. "Community Conversational: Supporting and Capturing Deliberative Talk in Local Consultation Processes". In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems (CHI'17)*, 2320–2333. New York: ACM. doi:10.1145/3025453.3025559.

Knutz, E., T. Markussen, and S. M. Thomsen. 2018. "Materiality in Probes: Three Perspectives for Co-Exploring Patient Democracy." *CoDesign*. doi:10.1080/15710882.2018.1445759.

Le Dantec, C. A., and S. Fox. 2015. "Strangers at the Gate: Gaining Access, Building Rapport, and Co-Constructing Community-Based Research." In *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '15)*, 1348–1358. New York, NY: ACM. doi:10.1145/2675133.2675147.

Lee, Y. 2008. "Design Participation Tactics: The Challenges and New Roles for Designers in the Co-Design Process." *CoDesign* 4 (1): 31–50. doi:10.1080/15710880701875613.

Light, A. 2010. "The Unit of Analysis in Understanding the Politics of Participatory Practice." In *Proceedings of the 11th Biennial Participatory Design Conference (PDC '10)*, 183–186. New York, NY: ACM. doi:10.1145/1900441.1900473.

Light, A., and Y. Akama. 2012. "The Human Touch: Participatory Practice and the Role of Facilitation in Designing with Communities." In *Proceedings of the 12th Participatory Design Conference: Research Papers - Volume 1 (PDC '12)*, edited by K. Halskov, H. Winschiers-Theophilus, Y. Lee, J. Simonsen, and K. Bødker, 61–70. New York, NY: ACM. doi:10.1145/2347635.2347645.

Light, A., and Y. Akama. 2014. "Structuring Future Social Relations: The Politics of Care in Participatory Practice." In *Proceedings of the 13th Participatory Design Conference: Research Papers - Volume 1 (PDC '14)*, 151–160. New York, NY: ACM. doi:10.1145/2661435.2661438.

Luhmann, N. 1979. *Trust and Power: Two Works by Niklas Luhmann*. Translation of German originals Vertrauen [1968] and Macht [1975]. Chichester: John Wiley.

Manzini, E. 2015. *Design When Everybody Designs: An Introduction to Design for Social Innovation*. Cambridge MA: MIT Press.

Möllering, G. 2013. "Process Views of Trusting and Crises." In *Handbook of Advances in Trust Research*, edited by R. Bachmann and A. Zaheer, 285–306. Cheltenham: Edward Elgar.

Pirinen, A. 2016. "The Barriers and Enablers of Co-Design for Services." *International Journal of Design* 10 (3): 27–42.

Robinson, T., and J. Simonsen. 2012. *Routledge International Handbook of Participatory Design*. London: Routledge.

Rose, G. 2016. "Discourse Analysis I: Text, Intertextuality and Context." In *Visual Methodologies*, 186–219. 4th ed. London: Sage.

Ssozi-Mugarura, F., E. Blake, and U. Rivett. 2017. "Codesigning with Communities to Support Rural Water Management in Uganda." *CoDesign* 13 (2): 110–126. doi:10.1080/15710882.2017.1310904.

Storni, C., T. Binder, P. Linde, and D. Stuedahl. 2015. "Designing Things Together: Intersections of Co-Design and Actor-Network Theory." *CoDesign* 11 (3–4): 149–151. doi:10.1080/15710882.2015.1081442.

van Rijn, H., Y. Bahk, P. J. Stappers, and K.-P. Lee. 2006. "Three Factors for Contextmapping in East Asia: Trust, Control and Nunchi." *CoDesign* 2 (3): 157–177. doi:10.1080/15710880600900561.

Warwick, L. 2017. "Designing Trust: The Importance of Relationships in Social Contexts." Paper presented at the 12th EAD Conference, Sapieze University of Romec, Italy, April 12-14. doi:10.1080/14606925.2017.1352817.

Withers, C. W. J. 2017. "Trust - in Geography." *Progress in Human Geography* 42 (4): 489–508. doi:10.1177/0309132516688078journals.sagepub.com/home/phg.

Yee, J., and H. White. 2015. ""The Goldilocks Conundrum: The 'Just Right' Conditions for Design to Achieve Impact in Public and Third Sector Projects."." *International Journal of Design* 10 (1): 7–19.