Piloting digital storytelling and action research as an approach to stimulate pro-environmental advocacy and behaviour change

A research report completed for the Department for Environment, Food and Rural Affairs by the University of Bath, Margaret Gearty and Michelle Williams.

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Glossary

Defra	Department for Environment, Food and Rural Affairs
EA	Environment Agency

Executive Summary

In May 2010 Defra commissioned a series of action-based research (ABR) projects. These projects aimed to build on the existing evidence base which showed that innovative solutions are required for people to live sustainable lifestyles. The aim of the ABR projects was to test approaches for catalysing change - in real life situations where evidence and theoretical insight suggest there are opportunities to achieve lasting change; and to identify what works, what does not work, and understand why.

The ABR reported here tested digital storytelling[1] as a means to stimulating pro-environmental advocacy amongst the 50 plus age group, and explored the effectiveness of such advocacy. In 2009 Defra identified the over 50's age-group as an untapped source of potential pro-environmental advocates who might influence other people towards increased environmental action (Collier, Cotterill et al, 2010)[2]. At the heart of this research lie eight short digital stories told by those across the 50 plus age spectrum[3]; and a set of narratives – tales from the field – that paint a rich picture of the research that features a selection of storytellers and audience groups.

Digital storytelling emerged in the mid-1990s as digital media opened up new avenues to gain a deeper understanding of the real-lived experiences of people in communities and workplaces. By combining digital stills with a recorded voiceover it is a potentially powerful form of storytelling that mixes advocacy and personal narration. Digital storytelling has been used in the NHS and in the public service in Wales as part of a shift towards a more person-centred culture in health and social care. Though it was clear these stories could engage people at the heart level as well as the head, there had been no direct evaluation of the impact of the stories on the storytellers' and audience actions. Nor had digital storytelling been used in the context of sustainable living. By adopting a participative action research approach this ABR set out to explore the potential for digital stories to advocate for and stimulate pro-environmental change.

[1] The term 'digital storytelling' is sometimes used to refer to film-making in general. It can cover a range of digital narratives, e.g. web-based stories, interactive stories, hypertexts, and narrative computer games. See http://en.wikipedia.org/wiki/Digital_storytelling. In this ABR the digital stories were conveyed through the use of video.

[2] There are some 20 million people aged 50 plus in the UK and this number is increasing as the population ages. This population group also has a wide variation in lifestyle.

[3] The digital stories can be viewed at: http://www.vimeo.com/album/1469229, password: chewmagna.

This action research set out two lines of inquiry to (i) explore whether digital storytelling could give voice to older people in a new and engaging way (see Figure 1 for a list of the digital storytellers and their stories); and (ii) explore the potential for digital stories, when used in conjunction with a participative action research process, to build momentum for pro-environmental change within and across communities and age groups (see Figure 2 for a list of the audience groups).

Storyteller	Story Title	Story theme
Helen	Looking forward	Make do and mend
Tim	Good job	Insulation
Pat G	Lucky dip	Cooking and shopping
Nick	From the sun	Solar panels
Andy	Why change it?	Not wasting
Pat and Ian	Trying to change	Small changes
Keith	Full of flavour	Allotment
Country market	Chew valley country market	Country market

Figure 1: Digital storytellers and their stories

Audience Group	Location	Description	Defra segment
Target 80	Chew Valley	Local environmental group	Positive Greens
U3A/Bowls 65+	Chew Valley	65 plus age group from a local bowls club and university of the third age	Waste Watchers
Parents and Governors and Teachers	Wiltshire market town	Middle age group connected via community group and governors at local primary school	n/a
Mothers of young children	Somerset village	Mothers of young children connected through church and toddler group	Cautious Participants
Teenagers	Chew Valley	Year 8 pupils (12-13) from local school	n/a
Climate Friendly	Wiltshire town	An ‘outside’ community environmental group	Positive Greens

Figure 2: Audience Groups

Over the course of two years the research team, associated with the University of Bath’s centre for action research, worked with (a) eight storytellers who were facilitated to script, voice and create their personal stories; and (b) over 90 participants whose ages ranged from 12 to 90 from across four rural communities around Somerset and Wiltshire. Audience participants were engaged in two workshops. At the first workshop they watched five of the eight digital stories, and discussed their immediate

reactions to them. At the second workshop (a few months later) they explored their thoughts, reflections and any changes in behaviour.

The research approach was one of embedded, participative action research where the participants were invited to become *co-researchers* rather than research subjects. The iterative nature of the inquiry process involved facilitated cycles of action and reflection, whereby participant learning and new research questions were generated along the way. As a result the research unfolded new themes and new lines of inquiry emerged.

The key findings, outlined below, are discussed in more detail in the full report:

- Digital storytelling was shown to be a fresh medium for advocacy about pro-environmental change for those in the 50+ age group. The digital stories were found by all audiences to be authentic and accessible, and almost universally agreeable. Several participants commented on how much easier they found it to absorb information this way rather than through more factual forms of communication. The stories succeeded in representing the views and activities of the older generation in a different and palatable way to younger audiences and in a valid, affirming way to those of a similar age. In some cases, participants did not fully identify with their lives or situations depicted in the stories (for example in generations adjacent to the storytellers and among those from communities with a different demographic). However this did not inhibit action.
- The digital stories could travel between communities. The stories and storytellers were credible to all three outside communities participating in the research. The stories were particularly well received by the outside audience group that was an environmental group from a similar demographic and with similar aims to those telling the stories.
- The most ‘inspiring’ stories combined dimensions of personality, storyline, and the pro-environmental behaviour / activity. A storyteller did not need to be a natural raconteur. Credibility, authenticity and passion were shown to be more important qualities. Multi-voiced or more abstract stories had less of an impact stand-alone, although these were found to play an important role in the story suite.
- Participation in the research impacted on participants’ pro-environmental behaviour in a wide range of ways and these are

documented in the report. Claims cannot be made about the durability of changes stimulated by this intervention. Neither can the effectiveness of the single digital story be disaggregated from that of the entire suite, and from that of the action research process itself. The workshops supported participants to deepen their exploration of pro-environmental behaviour in a personal way. However, the process worked less well for those who sought expert answers, information and guidance to change.

- There were some significant impacts on the storytellers themselves whose confidence and motivation to advocate for the environment increased as they participated in the digital storymaking and workshop process. All reported a desire to advocate further, some using their digital story to do so. Taking part placed practical and personal demands on the storytellers themselves requiring them to go through a process that they sometimes felt uncomfortable with. Creating trust and building confidence, therefore, was vital in engaging the storytellers in a process that was personally valuable to them.
- The research highlighted different attitudes to pro-environmental change within different generations. For example the 65 plus age group showed some resistance to explore change in the workshop but a readiness to develop their pro-environmental advocacy. In contrast, for young mothers, the digital stories and action research process can help open up significant pathways to action. However, this group is concerned, they have little time, as they see it, '*to even think'* about environmental issues.
- Within families different attitudes and approaches to pro-environmental behaviour exist that influence ultimate actions. For example, teenagers had a marginal influence at home, although there was some evidence that the research helped a few to overcome some of these barriers by becoming advocates in their family settings.
- The approach worked differently with dissimilar groups. For example the work with an outside environmental group, showed how stories and inquiry can reinforce and inspire those already very active environmentally (Positive Greens) to find new creative ways to act, and to think more deeply and creatively about their environmental choices and actions.

- The research raised suggestions that the Defra segmentation model may not be static, and that a more dynamic process may be at play. For example, it is suggested that participation in the storytelling research may have stimulated some movement in participant segmentation profiles and in particular in their willingness and ability to act.

Conclusions and Recommendations

- The older generation is a potentially willing, yet untapped source of pro-environmental advocates. The digital story form provides an effective medium for older people to tell their story, in a form that is palatable to others (including those from a younger generation).
- The most important factor was the credibility and perceived authenticity of the storyteller; this suggests that anyone could be a storyteller providing they meet this criteria. A story suite is important to provide a credible mix of stories and offer a broad range of behaviours with which each audience can connect with.
- Behaviour change varied according to the audience groups. Those that moved most were the younger and middle-aged groups. Behaviour change in older aged audiences was generally low. However, the potential to develop the advocacy of this group was detected. It is possible that changes / actions could be sustained and, therefore, more durable by having more workshops and / or providing more interim support (though this was not tested).
- Changes in participants' behaviour may be more durable if they adopt an active, learning stance in relation to pro-environmental change. It is suspected, however, that actions requiring participants to report or make a pledge might be less durable.
- The family setting was identified as a key 'site of negotiation' on pro-environmental issues with relationships at home playing a part in ultimate actions. When planning or discussing pro-environmental behaviour, several participants referred to the different attitudes and approaches within their families as a potential barrier. For others, advocacy in the home was positively influenced by their participation in the research.
- Local context was not a key variable in this research, the stories travelled well between communities and travelled best as a suite of

stories. The credibility, perceived authenticity and believability of the storyteller were more important than the role they played in the local community.

- Storytelling was found to be an attractive and appreciated form of communication. An unexpected consequence of the research was that two participants from different audiences reported adopting storytelling techniques themselves (one used digital storytelling, the other used oral storytelling) as a result of their participation.
- The process provides the potential to build and strengthen community ties. Whilst the stories in the host community served to reinforce a strong, pre-existing sense of local pride, participants in an outside community were also stimulated to localise their response and discuss community-level action.
- This pilot project showed a promising potential to build a momentum for change within the originating community of Chew Magna and also in those external communities where the research team worked. This project showed that, when embedded in a workshop setting, digital stories did travel and so can, in certain configurations at least, catalyse change. The research showed too the importance of storytelling occurring in a social context – and highlighted some of the ways social process can encourage change at an individual and at the collective level. However, the effectiveness of such stories to build lasting change across communities was limited in this pilot. We cannot say it was fully demonstrated.
- A range of further audience groupings could respond to this process. We recommend that groupings with pre-existing social ties but with a diversity of socio-economic background and environmental views might create the best social learning environment. Audiences comprising a diversity of age groupings (rather than single generational groups as were the main focus in this research) might also be fruitfully explored.

Further research and / or pilot projects are recommended to:

- Develop theoretical findings and explore the connections with other behaviour change literature.
- Conduct follow-up research to strengthen / confirm the findings (i.e. durability testing with participants).
- Package the existing stories and the approach.

- Develop new ‘partners’ for roll-out and going to scale, and actively seek out new audience groupings.
- Run a ‘cascaded storytelling’ pilot by supporting a group of participants to tailor and create their own bank of stories and to deploy this is in their own community.
- Run a ‘key influencer pilot’ with an audience who share a similar context for their pro-environmental advocacy and behaviour change, e.g. focused on young mothers or primary school head teachers.

Several implications emerge relating to scale-up and replication of this type of intervention. Whilst storytelling can be effective in engaging and empowering individuals and communities, there are cost and resource implications in rolling out the approach used in this research. These challenges, however, could largely be addressed by encouraging local communities to tell and propagate their own pro-environmental stories (digital and / or otherwise), and offering them support to do so. This could be enabled via a process of ‘cascading advocacy’ where the decision-making power and the storymaking tools and exercises are largely handed over to participating communities. The following would need to be considered:

- A strategic approach to selection of communities and audience groups.
- Identify those with influence in the public arena so as to increase the impact of the intervention.
- Increase diversity of participating communities.
- Develop a suite of stories, including inter-generational aspects.
- Employ a variety of storytelling approaches to encourage the cascading of storytelling and advocacy.
- Provide a resource base of information to support the process.
- Support participants to practice their advocacy in order to build the skills development aspect of this work.
- Offer a flexible package of support to participating communities.

1 Introduction

1.1 Research Overview

This two-year project was commissioned by Defra in 2009 as part of the second round of Action Based Research (ABR) to test and trial innovative approaches for influencing pro-environmental behaviour change. The research set out to explore how storytelling, specifically the emerging medium of 'digital storytelling', might enable people in the 50 plus age group to advocate for pro-environmental behaviour in a fresh and compelling way. Crucially the research also explored the effectiveness of such advocacy. A key second line of inquiry related to building the momentum for change. Through the research we were exploring to what degree digital storytelling might be a vehicle to accelerate and cascade pro-environmental change within and across communities and age groups. These two lines of inquiry were not tested from a distance. The research approach was one of embedded, participative action research. Over the course of two years we worked with over 90 participants whose ages ranged from 12 to 90 and from across four rural communities around Somerset and Wiltshire to explore these questions in a way that would be formative – in other words – in a way that would encourage and support participants to learn, develop and make changes as they participated in the research.

1.2 Research background and rationale

This research was conducted by a team of action researchers, associated with the University of Bath, whose research interests lay in the human dimensions of low carbon technologies; and where narrative approaches and action research might play a role in stimulating a more widespread adoption of sustainable practices and behaviours (Lowcarbonworks 2009, Gearty 2009).

Figure 1.1 The research team (from left to right): Michelle Williams, Margaret Gearty and Paul Pivcevic

These interests were in tune with the work of Defra's Sustainable Behaviours Unit[4] which, over recent years, has been building understanding of attitudes to pro-environmental behaviour in the UK and has been exploring ways to stimulate behaviour change on a societal level when there are varying degrees of readiness for such change.

The Defra Framework for Pro-environmental Behaviours (2008) suggested there are seven identifiable segments of the population whose attitudes range from those who are very willing and able (e.g. Positive Greens) to take pro-environmental action to those with little interest or ability to do anything at all (e.g. Stalled Starters and Honestly Disengaged). Building on this analysis Defra has then further explored some of the key social and psychological factors that might hinder or enable these differing segment groups to change (Bedford, Collingwood et al, 2010).

In parallel, Defra commissioned a series of action-based research (ABR) projects to test evidence-based hypotheses coming out of the substantive research by creating 'test-beds of innovation for catalysing change' (Collier, Cotterill et al, 2010). In 2009, one such hypothesis Defra wished to explore was that the 50 plus aged group were an untapped source of potential pro-environmental advocates who might influence other people towards increased environmental action. This resulted in a call for research proposals to which the research team at Bath responded (EVO522).

1.2.1 Older pro-environmental advocates

There are some 20 million people over 50 plus in the UK and this number is increasing as the population ages. It is a non-homogenous group with a wide variation of age and lifestyle within it. However, in broad terms, this is an age group already demonstrating an easier engagement with pro-environmental behaviours than others. Of the seven population segments, two (Positive Greens and Concerned Consumers) show high potential and willingness to adopt pro-environmental behaviours. Both these segments, making up 32% of the population, are over-represented by those in middle to older age groups (Defra, 2008). However the motivations within the wide age bracket of 50-100 plus do vary. The 'Waste Watchers', a segment comprising many aged 65 plus, demonstrate an ability to live a resource efficient life that is compatible with sustainability goals. However this group shows less willingness to overtly embrace an environmental agenda as such. As the name suggests 'Waste Watchers' are primarily driven by an urge to avoid waste rather than to reduce environmental impact. Thus the 50 plus age group at the centre of this

[4] Now known as Defra's Centre of Expertise on Influencing Behaviours

research has been identified as having valuable pro-environmental knowledge and practices even if they hold different motivations for those practices.

An assumption underlying this research is that the voices of the 50 plus age group on environmental issues are important. Aging people have a stake in a future that is not theirs but made personal through their children and grandchildren. Yet as they age, their stake in the mainstream running of society becomes more distant perhaps making their voices more marginal. Also the different motivations and language lying behind their pro-environmental activity might dampen those voices further. As such, a key line of inquiry for our research was exploring whether storytelling, and in particular 'digital storytelling' could act as a fresh medium to give voice to older advocates in a new and effective way. At the heart of this research lie eight stories told by those across the 50 plus age spectrum and what we have been testing is the potential for such stories to act as a vehicle for pro-environmental change.

1.2.2 Storytelling as a catalyst for change

Why stories? As far back as fifty years ago the American psychologist Bruner recognised that humans have essentially two modes of thought: the narrative and the analytical (Bruner 1986). Being 'narratively inclined', people can respond and relate to stories even though they are highly specific and unrepeatable. Yet, as organisational learning experts from the Massachussetts Institute of Technology (MIT) noted, our organisations and formal communications are notably devoid of stories – they are 'mythically deprived' (Roth and Kleiner 1998). So a layer of learning, at the human level, can be absent when attempts are made to scale learning from one place to the next using conventional approaches, such as the case study, which focuses primarily on the actions that were taken rather than the intentions, experiences and feelings of the people involved.

By way of example, the University of Bath's Lowcarbonworks program showed how local authority practitioners were inspired to take real and measurable action when working with the narrative based 'learning histories' of projects elsewhere, i.e. where the characters and intentions are described alongside the doing of the work (Lowcarbonworks 2009, Gearty 2009). The conclusion was that this was a complementary form of advocacy to the more direct form that relies on facts and information, but it is one that is equally if not more powerful. In this research we are exploring how the 'narrative advocacy' of older members of our communities might be linked to 'practical advocacy' and on to action.

1.2.3 Digital Storytelling

This research builds on Gearty's work with narrative learning histories and extends it to the use of a new and potentially more scalable form of narrative based learning: digital storytelling. Digital storytelling emerged in the mid-90s as digital media opened up new avenues to gain a deeper understanding of the real-lived experiences of those in our communities and workplaces.

Following ideals of cultural democracy and community participation, a group of media artists, designers, and practitioners in San Francisco created the digital story form whereby people could tell a personal story by combining still digital images with voiceover and sometimes music or text. Inspired by the San Francisco work, Dr. Daniel Meadows of Cardiff University and Karen Lewis of the BBC created the BBC's multi-award winning 8 year digital storytelling project "Capture Wales" where people from communities across Wales were facilitated to script, voice and create their personal stories. Karen Lewis went on to establish Storyworks at the University of Glamorgan and they have since gone on to use this highly participative approach in the public service in Wales as part of an overall shift towards a more person-centred culture in health and social care. Having seen some of the Capture Wales stories the research team felt this was a potentially powerful form of storytelling that mixes advocacy and personal narration, and engages people at the heart level as well as the head.

Recent research on the impact of storytelling in the NHS has evidenced the emotional impact of digital storytelling and consequent changes in professional practice that can result (Hardy 2007). However, there has been no direct evaluation of the impact of the stories on the audience and storytellers' actions in the world. Nor has digital storytelling been used, to our knowledge, in the context of sustainability.

The emphasis of digital storytelling to date has been the inclusion and empowerment of the storyteller through the experience of voicing his/her story. This sits well with our underlying starting assumption that for older people to become effective advocates new ways of voicing that advocacy will be required. Here, for the first time, we are also exploring the impact of the story on the teller and on audiences. The first line of inquiry of our research is exploring if digital storytelling can be a medium that advocates pro-environmental action through narrative and participation rather than through instruction and direction.

We partnered with Storyworks for this project drawing on their considerable experience to create the digital stories that we will later introduce.

1.2.4 Catalysing and building the momentum for change

The second line of inquiry relates particularly to the effectiveness of the advocacy that digital stories might enable. Defra action-based research recognises the need to encourage individual behaviour change at the same time as finding ways to accelerate the manner in which this behaviour change gathers momentum within and between communities. Furthermore, the Defra evidence suggests that some population segments (e.g. Cautious Participants) are strongly influenced by social norms, whereby '*what others are doing is key'* (Defra, 2011).

In this research we have set out to explore whether digital storytelling can help encourage action, by portraying a wide range of pro-environmental behaviours which the viewers could relate to and potentially emulate, or which might stimulate them to try new behaviours of their own. Thus this research is not limited to creating and testing single point occurrences of advocacy. It extends to piloting processes for scaling up that advocacy and building collective capability for sustained pro-environmental behaviour change within and across communities.

In the research design we worked with the idea of 'cascaded advocacy'. By this we mean that the narrative advocacy of our storytellers might 'cascade' to others inspiring them to take action but also perhaps to become narrative advocates in their own right. In the course of the research we cascaded the digital stories we created with our older advocates to six different audience groups and explored their responses to them. Our audience groups varied in age, life-stage and geographical location in relation to our originating community of storytellers. Three of these audiences were drawn from the originating community of Chew Magna. Three further audiences were drawn from similar but external communities in Wiltshire. With these audiences we were exploring the potential for digital storytelling to build momentum for change. And by adopting an action research approach we were piloting a process that could enable such momentum for change to be built.

1.3 Action research

The action research approach taken on this project follows in the tradition of action research built over some 25 years at the Centre for Action Research at the University of Bath. In its fullest sense, this school of action research has sought to contribute to the "*flourishing of human persons, their communities and the wider ecology in which they participate*" (Reason and Bradbury 2008).

As such our approaches are robust, well tested and well aligned with pro-environmental aims.

Action research is a participative, pragmatic approach to research that aims to address issues of practical relevance. Participants are invited to become *co-researchers* rather than research subjects, making sense of what they do and developing their questions and actions in the world through a process of inquiry. Research outcomes are therefore embedded. The goal of learning and change for participants is valued as highly as the findings drawn from the field. Equally those findings are, by definition, more emergent due to the iterative nature of a typical inquiry process that involves facilitated cycles of action and reflection.

Figure 1.2 below shows the cyclical nature of the research that broadly followed the two key lines of inquiry discussed above. This figure illustrates the exploratory nature of this research that, like any qualitative study, has resulted in an evidence base that also created participant and community outcomes that were less measurable and easy to define. However the chain of evidence from questions to evidence is not as linear as in other studies. This ‘line of inquiry’ approach generates participant learning and new research questions along the way. As the research unfolded we were working flexibly with emerging themes and research stories to develop an evidence base and ultimately some new lines of inquiry. The iterative, reflexive nature of this research is also evident in the structure of our research design. Chapter 2 explains this design in more detail but in essence we engaged our audience participants in a single action-reflection cycle, across two workshops. At the first workshop they watched the digital stories and discussed their immediate reactions to them. At the second workshop (two to three months later) they explored their thoughts, reflections and any changes in behaviour since the first workshop.

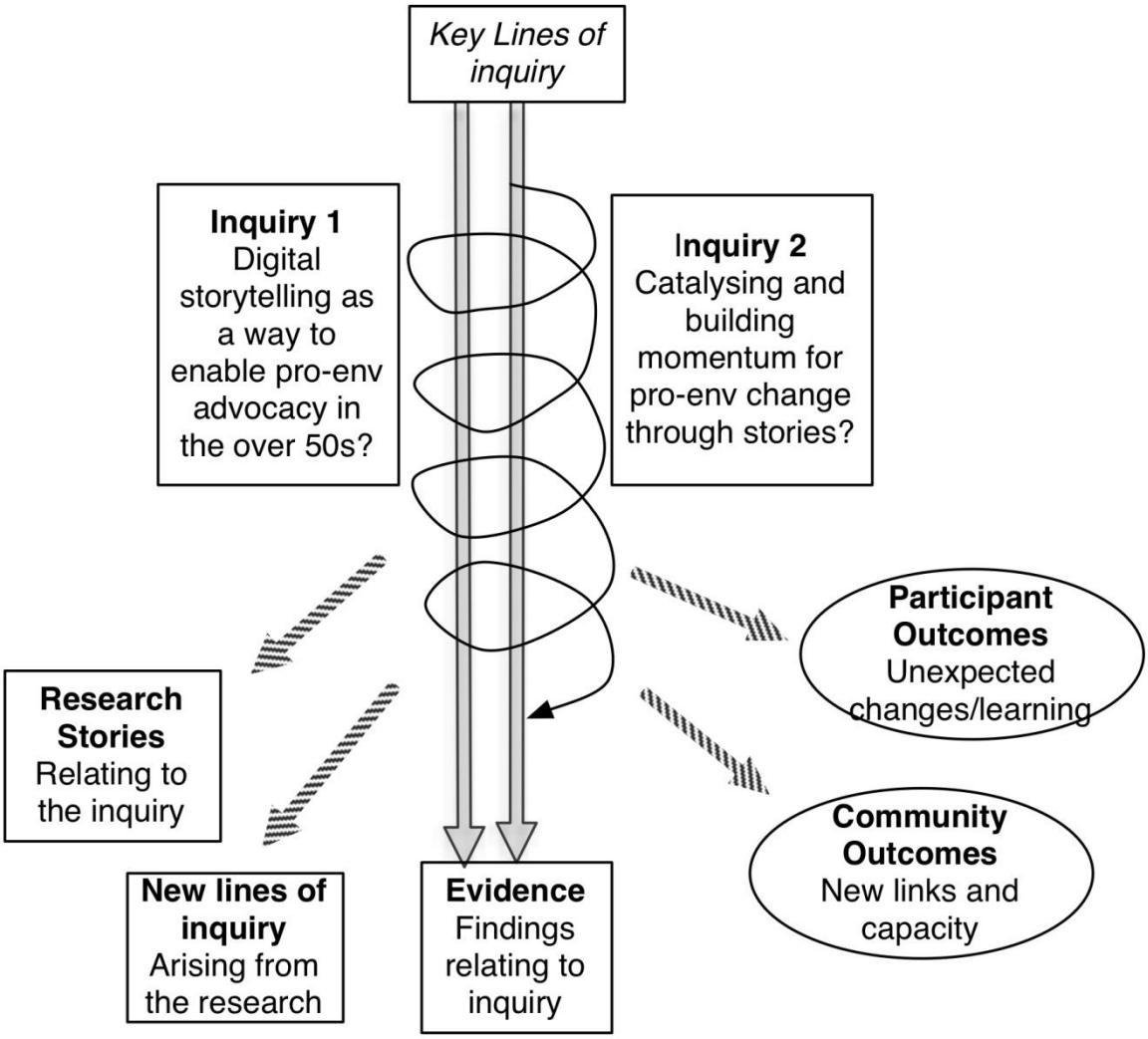

Figure 1.2: A formative, iterative action research approach allows for a fuller exploration as well as outcomes for participants in the field

Action research pays particular attention to people's actual behaviour - what action scientists call their 'theory-in-use' (Argyris and Schon 1976) - compared to their espoused behaviour (or their 'espoused theory') i.e. how they see themselves, how they plan and hope to act. Reflecting on the gap between the two can be a powerful source of learning as an individual notices and can discuss assumptions, tensions or power dynamics that are fixing behaviour in place. This inquiry approach works more overtly with the reality of people's experiences and allows for a fuller exploration of the actual outcomes of any action taken (or not). The reflexive practice of the researcher – and co-researcher - is essential to ensure he/she 'sees' and questions what is emerging through the research process. The result is a richer, more nuanced set of findings but also a greater openness to challenge assumptions at all levels in the process. For example we supported individual participants to

reflect and inquire into their own responses to the digital stories and the research process – a process called 'first-person inquiry' (Torbert 2001) but equally we were inviting them to reflect on our choices as researchers. For instance when filling out segmentation questionnaires we recorded participant reactions to the questions as well as their answers.

The twin aims of creating value and learning in the field as well as for our research project runs throughout. For example we drew on Bandura's concept of self-efficacy to determine the durability of our intervention. Self-efficacy is defined as "an individual's belief in his or her capability to organise and execute the course of action required to produce given attainments" (Bandura 1977) and many studies support the link between self-efficacy and achieving goals we set ourselves. Our research was designed to both track and *increase* our participants' self-efficacy through the process.

However we were also drawing on Bandura's notion of collective efficacy in a community context and exploring in this research the importance of 'community action' in order to engage and enable change (Defra, 2008). One of the digital stories featured community action for that reason. And our workshops were spaces that were designed to allow social learning to occur. Drawing on Kemmis's idea of 'communicative space' we created trusting conversational space in the workshops, where participants felt able and willing to express their thoughts and feelings honestly (Kemmis, 2001). We were in effect creating the potential for 2nd-person inquiry (Torbert, 2001). By collectively engaging with the digital stories, and by having space to reflect on any barriers to action they faced, a group could start to question its own hidden assumptions and so develop strategies, changes and new lines of inquiry together.

The experimental, real-world nature of the action research (AR) approach that we took links well with the 'test-bed' nature of action-based research (ABR) projects at Defra. ABR projects seek to test evidence-based hypotheses by piloting actions in the field and, as such, is complemented well by the embedded, engaged nature of AR. In this project participants co-created the research agenda and thus were exploring their own actions and learning. So the process of action research, through which we were pursuing our lines of inquiry, was itself contributing to the potential for pro-environmental change. Individual and social learning was a central facet of our research approach. In this way the potential for building momentum and change within our participant groups and across communities was increased.

In summary our role as action researchers in this process was crucial to the kind of qualitative data that we were able to generate and to the potential for participants to learn from the experience and from each other. We used our dialogue skills to encourage people to discuss issues, which might normally be considered 'taboo' in environmental circles. We asked some direct questions, but mostly we allowed participants to direct the conversation to topics which were of interest, and of relevance to them. In these various ways we were able to provide a space for participants to share their understandings of the issues as well as their behavioural practices, thus allowing peer to peer learning to take place which is an important enabler to action (Defra, 2011).

This approach allowed us to surface rich and nuanced data of the kind that often gets overlooked in more traditional focus groups. As Chapter 2 will outline, we used mixed methods to analyse the research material. An evidence-base directly relating to actions taken and participant responses is described in Chapter 4. In addition we relied on our observational skills and ongoing reflexive practice to help us make sense of the wider research data being surfaced. This resulted in a rich qualitative evidence base that includes grounded interpretive findings (see Chapter 4) as well as grounded narration (see Chapter 3). Finally the research has, as any emergent action research process does, generated new questions and new possible lines of inquiry and these will be introduced in Chapter 4 and discussed further in Chapter 5.

1.4 Lines of inquiry and research questions

We have outlined the background to this project, described the research context and explained the rationale for the approach that we took. Here we summarise our two key lines of inquiry and introduce the research questions and sub questions that we derived from these:

Line of inquiry 1: Might digital storytelling provide a fresh medium to give voice to older people across the 50-100 plus spectrum on pro-environmental behaviours and practices and so enable them to advocate in a new and effective way?

Line of inquiry 2: Might digital stories, when used in conjunction with an action research process, provide the means to build the momentum for change within and across diverse communities and audiences?

Derived from these two broad lines of inquiry, we formulated a set of five research questions and associated sub-questions, which related to specific

aspects of the intervention. These are shown in the table below. Whilst all research questions were inter-related it is clear that some related more to the first line of inquiry (i.e. (1) Impact of Digital Stories and (3) Impact on Storytellers) whilst others related more closely to the second line of inquiry (i.e. (4) Cross-community effects and (5) Collective ties and durability). Question (2), regarding the impact of action research, straddles both lines of inquiry and relates to the process used to conduct the research, which, as we have already outlined, was closely linked to the research aims.

These questions were refined iteratively as we proceeded through the inquiry. The table on the next page summarises the questions as they stood at the end of the project and which we consider in our analysis in Chapter 4.

	Research question	Sub questions
1	**Digital stories:** What impact does watching the digital stories have on the pro-environmental behaviour and advocacy of the participants?	How does the form and content of a digital story and the storyteller(s) featured in that story impact on participants? What works well? What works less well? What's important to consider when creating a suite of such stories? How did the stories (individually or as a suite) support or stimulate participants' pro-environmental behaviour? What were the differences/similarities between audience groups in terms of their response?
2	**Action research:** How does taking part in an action research process enhance the impact of the digital stories on participants?	How does taking part in the action research workshops impact on participants' pro-environmental behaviour or intentions to act? How does the action research process enhance the impact of the digital stories specifically? What works well? What works less well? Specifically, how effective are the individual elements: e.g. storybooklets, action research diaries, posters and supporting information?
3	**Storytellers:** What is the impact on the storytellers of taking part in this process?	What is the impact on the storytellers of making their digital stories and taking part in the action research workshops? Who makes a 'good' storyteller for a process like this?
4	**Cross Community effects:** How does the impact of the digital stories differ between the storytellers' host community and outside communities?	How do factors like local credibility and the storyteller being known to the participants affect the impact of the digital stories? What difference does it make if the community context is different? How well do stories travel between communities?
5	**Collective ties & durability:** What are likely to be the enduring effects of this intervention on the participating communities?	What is the impact on collective confidence to make a change? How does this intervention contribute to the strengthening of collective ties? How might this help sustain actions and advocacy into the future?

Figure 1.3 Substantive research questions at the end of the research

1.5 Summary of digital stories in this research

In this research we worked closely with the rural Somerset community of Chew Magna on the outskirts of Bristol. To help us recruit our storytellers and audiences we worked in partnership with a local community environmental group called Target80. This was a successor to the successful GoZero! environmental group that had also been based in Chew Magna and that had been active for some years.

With help from Target80, we recruited eight storytellers - shown below -who represented a diversity of age, gender and lifestyle.

Figure 1.4 Storytellers (from left to right and descending): Helen, Tim, Pat, Nick, Andy, Pat and Ian, Keith and the Country Market.

We then worked with them to produce a suite of eight digital stories that depicted a broad range of nine key behaviours identified in Defra's Sustainable Lifestyles Framework (2011) ranging from large scale to everyday. In Chapter 2 we will explain in more detail the recruitment criteria for our storytellers and how we worked with them to create their digital stories. In Figure 1.5 below we summarise the final set of digital stories that resulted, indicating which of the nine key behaviours they best illustrate.

Story-teller	Story Title	Story theme	Defra Key Behaviours
Helen	Looking forward	Make do and mend	Extending the life of things
Tim	Good job	Insulation	Eco-improving your home
Pat G	Lucky dip	Cooking and shopping	Cooking & managing a sustainable and healthier diet
Nick	From the sun	Solar panels	Setting up & using resources in your community; eco-improving your home
Andy	Why change it?	Not wasting	Using water wisely; extending the life of things
Pat and Ian	Trying to change	Small changes	Travelling sustainably; eco-improving your home
Keith	Full of flavour	Allotment	Using & future-proofing outdoor spaces; cooking & managing a sustainable and healthier diet
Country market	Chew valley country market	Country market	Setting up and using resources in your community; cooking & managing a sustainable and healthier diet

Figure 1.5 Quick reference guide to digital stories

With kind permission of our storytellers, their stories can be viewed on the Internet by following this link:

http://www.vimeo.com/album/1469229 (password chewmagna)

1.6 Summary of audience groups

Over the period of the research we worked with six audience groups of varying age, life-stage, pro-environmental attitude and geographical location in relation to Chew Magna and its surrounding area of Chew Valley. The rationale for these selection criteria will be fully explained in Chapter 2.

We attracted 80 participants for the first round of workshops and 62 for the second. The relatively small sample size of some of the groups means that some care must be taken with the interpretation of the data, and we explain this limitation and others in Chapter 2.

The figure below summarises the final audience groups we worked with, a brief description of each, and the acronym we have used to refer to them throughout this report.

Nr	Audience name	Acronym	Location	Description
0	Target 80	Chew-greens	Chew Valley	Local environmental group
1	U3A/Bowls 65+	Chew-65+	Chew Valley	65+ age group
2	Parents, Governors and Teachers	Wilts-PGT	Wiltshire market town	Middle age group connected through primary school
3	Mothers of young children	Soms-mothers	Somerset village	Mothers of young children connected through church and toddler group
4	Teenagers	Chew-teens	Chew Valley	Year 8 pupils (12-13) from local school
5	Climate Friendly	Wilts-greens	Wiltshire town	An **outside** community environmental group

Figure 1.6 Audience groups worked with during project

1.7 How to read this report

In Chapter 2 we describe our methodology and approach to evaluation. This includes our detailed research design, an explanation of the different workshop elements we developed and a link between our research questions and our evaluation tools. We also describe the convening process for our storytellers and audience groups, the rationale for their selection, and a summary of the process the storytellers went through to create their digital stories. It also provides a commentary on the process and so, to an extent, speaks to research question 2. Throughout Chapter 2 we have included text boxes to describe our experiences of trying to conduct this participative action research project, and to capture some of our insights and reflections on the process.

It is important to interrupt the reading of the report at some stage to watch the digital stories on the internet (link provided in Section 1.5) in order to have the necessary context to understand the findings in the rest of the report. We suggest these might best be viewed at the end of Chapter 2.

In Chapter 3 we present a set of seven narratives, named in the spirit of Van Maanen's research 'tales from the field' (Van Maanen, 1998) and in tune with our earlier work (Lowcarbonworks, 2009, Gearty, 2009) that recognised the broader action research view that stories, by painting a rich and situated picture, offer a means of research presentation that is complementary and of equal value to more abstracted forms. Six of these short stories are drawn from across our audience groups and one combines three stories from our storytellers. These stand-alone narratives illustrate the impact of the research on our participants whilst also showing the research process in action and highlighting some of the unintended consequences of the research. In short they are included to paint a rich and integrated picture against which the findings and conclusions of Chapters 4 and 5 can be read. As they enhance the research findings we suggest Chapter 3 is best read before Chapter 4 but it can be read at any stage.

Chapter 4 draws on the narratives in Chapter 3, alongside other sources of data, to presents our qualitative findings. These range from quite specific findings that derive quite closely from the data to more speculative discussions as to what interesting questions and new lines of inquiry start to arise when looking across the research process as a whole. The chapter starts with a summary of findings specific to each audience group, then across all audience groups, before capturing findings specific to our 5 broad research questions, set out above.

The report concludes in Chapter 5 with a summary of our key conclusions, a final commentary on some of the key limitations of the research design and methodology, and implications for policy makers, community groups and the research community.

2 Methodology

In this chapter we offer a detailed explanation of our methodology, including the overarching research design, the design of our two participative workshops, and our evaluation approach. We explain our rationale for selecting the storytellers and the audience groups, and our approach to recruitment. We also detail the story creation process, and our criteria for selecting which stories to show each audience. Throughout this chapter we use text boxes giving researcher reflections to illustrate some of our experiences of conducting this research. These insights and reflections start to unpack the relationship between our action research approach and the key lines of inquiry we were exploring.

2.1 Action research – principles at play

As Chapter 1 has outlined our orientation as action researchers had a central influence on the research design. Though we were clearly aiming to find things out about the research topic, but we are also aiming to conduct research that would be 'formative' i.e. that would have some lasting value for the participants involved. This value could be in terms of new learning, or helping them address some practical issue in their lives. This approach reflects the pragmatic and participative nature of action research that puts the participant(s) at the heart of the research.

The figure below outlines the methodological principles at play in our research design and in evidence through this chapter. In summary our approach to inquiry was: reflexive, questioning, participant-focused and paying attention to the real experience of participants over time. This set the overall framework for our methodology and the design choices we made.

Methodological principle	Description
Participative and reflexive	Through our research design and evaluation process we worked with specific research questions but also made space for participants to comment and reflect on the process as they experienced it
Formative	We made space in our workshops for reflective exercises specifically aimed at helping participants articulate what was important to them and to learn from that, even if their responses did not form part of the evaluation data that we collected (see for example reflective 'freefall writing'[5]).
Emergent	Our research design allowed time in each workshop for unexpected happenings, responses or reactions that might challenge the assumptions we brought in as researchers. We were open to adapting our design in the moment and as we went along.
Iterative, reflective inquiry	As a research team, we consciously engaged in cycles of action and reflection. We built time into the programme to come together in supervision after each engagement cycle to share our observations and reflections, to iterate our research questions, and to adjust our plans if necessary before the next round.

Figure 2.1 A summary of the research principles guiding the design

2.2 Overview of the research programme

Here we present a brief overview of the research design, before describing in detail each of the action cycles/phases that we followed. The first stage in the design was to recruit 8 volunteer storytellers from Chew Magna (a rural village in Somerset) between the ages of 50 and 100. The Storyworks team then worked with these volunteers to develop and professionally produce their stories of everyday pro-environmental behaviour. These stories, recorded in the form of short two to three-minute digital films, captured the thoughts, feelings and motivations of the storytellers alongside a description of their behaviour. The finished stories were then shown to a diverse range of audiences, drawn from different age groups, life stages and communities, as part of a facilitated action research process. Over the course of two workshops the action research team worked with participants to explore their responses to the stories and the impact of watching them on their pro-environmental attitudes and behaviour.

In summary, the research design followed the six action cycles/phases set out in the figure below:

[5] An approach where participants write without pause on the page to capture top of mind, felt experience of the moment.

Phase	Date	Overview
Phase 1 Engaging Storytellers	**May-June 2010 2 months**	Engaging with a Somerset-based environmental group of Target80 and the wider community to recruit a set of storytellers from across the 50 plus age group.
Phase 2 Creating the digital stories	**June-Sept 2010 4 months**	Collaborating with Storyworks and our storytellers to create a suite of 8, three-minute digital stories demonstrating a range of pro-environmental behaviours. Concluding with a 'viewing' workshop with storytellers where they come together to view stories.
Phase 3 Convening audience groups	**May 2010-Nov 2010 7 months**	Recruiting six audience groups of various ages and life stages from within the Somerset community and outside of it.
Phase 4 First Audience Workshops	**Nov 2010-Feb 2011 4 months**	Conducting the first cycle of audience workshops where audiences viewed the stories, engaged with the environmental issue generally and, in an action research setting, developed and discussed possible actions going forward.
Phase 5 Second Audience Workshops	**March-April 2011 2 months**	Re-convening the audiences for a second cycle of inquiry, exploring recollections of the first workshops and what occurred in the interim.
Phase 6 Storytellers Reflections	**June 2011**	Meeting the original storytellers to update them on the research and to reflect with them on their participation in the process, their learning, and its impact on their sense of advocacy and pro-environmental behaviours.

Figure 2.2 Overview of the six phases of the field research program

Each action phase is now fully described giving an overview of what was done, and the methods and samples chosen. This description is supplemented by samples of our research materials contained in the technical annex.

2.3 Phase 1: Engaging Storytellers

May-June 2010 2 months	Engaging with a Somerset-based environmental group of Target80 and the wider community to recruit a set of storytellers from across the 50 plus age group.

The first step in the project was to recruit a group of 8 volunteers, aged between 50 and 100, who wanted to work with us to create their digital stories.

2.3.1 Recruitment rationale

We worked with the environmental action group Target80 (T80) based in Chew Magna to help us recruit our storytellers. We chose this group because

of their history of successful environmental projects and because of the pre-existing relationship between one of their leaders and the Bath research team. We believed it would be quicker and more effective to convene our storytellers by utilising the T80 leader's contacts rather than trying to build our own network of relationships in a community where we were not known.

We assumed that we would have more volunteer storytellers than we needed, so we developed the following selection criteria (based largely on the Defra evidence regarding the 50 plus age group referred to in Chapter 1).

- Storytellers to be drawn from as wide an age range as possible over 50, to reflect the non-homogeneity of the 50 plus group.
- Storytellers to be motivated to engage in pro-environmental behaviour for a variety of reasons, not just environmental concerns.
- Story suite to reflect a wide range of pro-environmental behaviours, consistent with Defra's Sustainable Lifestyles Framework (2011).

2.3.2 Recruitment approach

Introducing Lisa and Storyworks

Storyworks was one of our research partners and we drew on their considerable experience to create the digital stories. Lisa Heledd-Jones is a development officer at Storyworks. She worked closely with our storytellers throughout and played a central role in the facilitation and production of the digital stories in this research.

Figure 2.3 Lisa-Heledd Jones from Storyworks listens reflectively at the first Storytellers' workshop

Working with our contact at T80 we developed an approach to help us attract T80 supporters as well as those from the wider Chew Valley community.

We designed a storytellers' launch evening in conjunction with Storyworks to tell participants about the research, show some digital stories and explain what would be involved in becoming a storyteller. We used the slogan 'everyone has a story to tell' in our publicity material, as we hoped this would appeal to those who did not consider themselves natural storytellers, or fully committed environmentalists. We displayed a poster (see appendix A) widely around the village and our T80 contact emailed this out to his local networks. Crucially,

we visited Chew Magna for a day, visiting community hub-spots like the local country market and the monthly charity lunch event, so we could talk directly to people about the research.

Researcher reflection

This visit day was to prove an important move in broadening the range of our storytellers and indeed in finding them. This gave Lisa, from Storyworks, and the action research team, a chance to personally explain to people what was involved and to encourage them to come along. The concerns that some people raised about taking part in the research gave us an insight into older people's fears about becoming an advocate (e.g. for health reasons), and this enabled us to tailor the design of our launch event to make sure we addressed these fears.

The turnout for our launch evening was nine, thus the pool of potential storytellers from which we could select was considerably smaller than we had imagined (we had estimated 20-25 participants might come). Six people (5 men, 1 woman) were connected with T80 and three women had come along after meeting the research team on their visit day. During the evening the participants had the opportunity to practice storytelling, see what a digital story was like, and be introduced to the research objectives and the team.

Researcher reflection

During this evening we started to get a sense of which storytellers and what emerging storylines might prove effective, but this was a new experience for us all. Storyworks instinctively knew the qualities of what made a good storyteller: the person's voice, their demeanour and style all played a role. Yet the content of their story was also important, since it had to convey and in some way link to environmental behaviour. Thus whilst we were working with stories, we were also working with an agenda. In the background we were checking against Defra's behavioural framework and looking to select a range of stories and storytellers that might be as diverse as possible. We were explicit about this with participants but we also wanted to reassure them the final story would be genuinely their own. This was the start of quite a challenging process to try and reconcile these twin objectives.

From this launch evening we recruited six out of 9 participants to be our storytellers (two decided not to take part further and one had a very similar story to another participant). The T80 leader and his wife contributed the seventh story, which they decided to tell between them, and the final story came from the people we had visited at the Country Market, who accepted our invitation to tell a multi-voiced story of their experiences.

Researcher reflection

This was an interesting example of trying to work emergently and iteratively. The inclusion of two multi-voiced stories, alongside the six single voiced ones, was a change to our original research design. But we went ahead on the basis that it would add an interesting dimension to our research, which had not been included at the design stage.

2.3.3 Summary of storytellers

The figure below summarises the final group of storytellers that we worked with, and indicates their 'fit' against our original recruitment criteria. We were successful in achieving a balance across the sexes, and our storytellers ranged in age quite evenly from 50 to 77. We had hoped to engage with some participants in their 80's and 90's, but the people who expressed initial interest were unable to take part for practical and health reasons.

In the last column we have indicated the storytellers' segmentation status, which we assessed using the Defra segmentation questionnaire.

Storyteller	Age	M/F	Recruited through	Segmentation
Helen	50-60	F	Link to T80	3 Concerned consumer
Tim	60-70	M	Link to T80, husband of Helen	3 Concerned consumer
Pat	70-80	F	Met research team at Country Market	3 Concerned consumer
Nick	60-70	M	Link to T80	1 Positive Green
Andy	50-60	M	Link to T80	1 Positive Green
Pat and Ian	50-60	F+M	Link to T80	1 Positive Green
Keith	60-70	M	Met research team at country market	1 Positive Green
Country market	N/A	N/A	Research team visit	N/A

Figure 2.4 Demographics and segmentation of final set of storytellers

Researcher reflection

We experienced some challenges in working with participants at the older end of the age spectrum, which we had not fully anticipated at the planning and design stage:

- Health issues meant that two interested storytellers over 80 were not able to participate, which reduced the diversity of our storyteller group. To be inclusive of this much older age group would have taken much more time and resource to be able to work flexibly around their health needs.
- Two of our older storytellers were not computer users, so it took more time and resources to contact them, and we could not use the internet for viewing and commenting on their stories.
- The timing of the workshops was a challenge, given the mixed age of the group. Some of the storytellers, between 50 and 65, were still working and preferred the evenings, whilst the remainder of the storytellers were retired and preferred the daytime. For the Storycircle day we compromised and ran it at the weekend.

2.4 Phase 2: Creating the digital stories

June-Sept 2010 **4 months**	Collaborating with Storyworks and our storytellers to create a suite of 8, three-minute digital stories demonstrating a range of pro-environmental behaviours. Concluding with a 'viewing' workshop with storytellers where they come together to view stories.

Having recruited our storytellers the next step involved working with them to progress from their rough story outline to an engaging and authentic three-minute digital story. This stage involved some intense work by Storyworks and took four months.

The first time we brought the storytellers together to start developing their stories was at a 'Storycircle' day in June 2010. The intention was to make this a relaxing and enjoyable day where the storytellers would start to build trust with the research team. Working together with Storyworks we devised a series of exercises to allow participants to warm up and start to practice telling stories. The aim was to develop their confidence, to start to build trust and start shaping what they might say. Lisa captured participants' ideas as they spoke so that the group could visualise and comment on these ideas as the day went on.

By the end of the Storycircle day we had arrived at an outline story for each participant, but the real work of crafting the story took place over the next three months. Lisa worked with people individually in their homes to create their final stories. This was a trusting, personal stage involving looking through photos together and Lisa digitally recording their spoken stories. Each person worked differently – some created a script, others spoke more ad lib and their commentary was edited. As the stories started to emerge, the research team liaised with Defra to check that the suite overall was representative of the breadth of pro-environmental behaviour change we wanted to stimulate.

Researcher reflection

This was an intense stage of negotiation with Lisa bridging and holding the relationship with storytellers whilst behind her the action research team moved, tweaked and made decisions on the final content of the films.

Arrival at the final story line, and managing the inherent tensions, was thus a difficult process, and involved iterative and participative working between the whole research team and Defra.

Figure 2.5 Graphic representation of Pat's story at storycircle day June 2010

At the end of the story creation process we arrived at 8 rough cut stories, which Lisa took and professionally edited into the final two to three-minute films. These broadly covered the range and scale of pro-environmental behaviours that we had been looking for. The table below is an expanded version of the table in Figure 1.5 which appears in Chapter 1, detailing the final stories and their story content.

Storyteller	Age	Gender	Story title	Final story area
Helen	50-60	F	Looking forward	Make do and mend in context of 4 generations of women
Tim	60-70	M	Good job	Helping his daughter put loft insulation in and economic benefits thereof
Pat	70-80	F	Lucky dip	Local shopping and benefits of bulk cooking
Nick	60-70	M	From the sun	Solar panels on local school, creating a school garden, and his role in this as the school caretaker
Andy	50-60	M	Why change it?	Repairing, re-using, conserving and clashes with modern lifestyle choices (e.g. travel)
Pat and Ian	50-60	F+M	Trying to change	Reflection on taking a continuous, incremental approach to being environmental
Keith	60-70	M	Full of flavour	The joy of growing veg on his allotment
Country market story	50+	Mixed	Chew Valley country market	The country market, its benefit and ethos from several of those involved

Figure 2.6 Final set of digital stories

This is a reminder of where the stories may be viewed on the internet:

http://www.vimeo.com/album/1469229 (password chewmagna)

At the end of the story creation process we brought the storytellers back together for a 'screening evening' to view the finished films and give their agreement for them to be shown in public.

Researcher reflection

This was a very positive and enjoyable evening for us all. Every one of the storytellers expressed their approval of the final editing decisions that Lisa had made, and how the stories still felt genuinely their own. Several commented on how well Lisa had teased out a different storyline from each of them, resulting in the broad spectrum of behaviours depicted.

We believe that Lisa's participative style of working had allowed her to build a close and highly trusting relationship with the storytellers, which allowed her to retain the authenticity of their story. However, Lisa later reflected that the stories felt less 'passionate' than she would normally expect, which may have been a reflection of how we needed to direct the story content to a greater extent than would normally happen. It may also have reflected our recruitment decision to select storytellers who were not always 'passionate' about the environment, but could be acting for other, more pragmatic reasons as well e.g. to save money.

2.5 Phase 3: Convening audience groups

May 2010-Nov 2010 **7 months**	Recruiting six audience groups of various ages and life stages from within the Somerset community and outside of it.

2.5.1 Audience choice

The most intense phases of the field research were Phases 3 to 5, where we recruited our audience groups and conducted two participative workshops with them. The intention was to engage with six differently aged audiences, five of which would be from within the Chew Valley area. This is a summary of our proposed audience groups at the start of this project:

Description of audience	Location	Age group	Assumed segmentation	Expected no of participants
Target80 environmental group	Host community	Mixed	Mainly Positive Greens (Segment 1)	20 - 25
65+ retired community group i.e. WI	Host community	65+	Mainly Waste Watchers (Segment 2)	12 – 15
50 to 65 community group i.e. PTA & Governors of local Secondary School	Host community	50 – 65	Mix of Waste Watchers (Segment 2) and Cautious Participants (Segment 5)	12- 15
Mother & toddlers group	Host community	20 - 35	Mainly Concerned Consumers (Segment 3)	10 – 15
Teenagers	Host community	13 - 18	Mixture of segments	12 - 15
Community environmental group	Outside community	Mixed	Mainly Positive Greens (Segment 1)	20 - 25
Total number expected				**86-110**

Figure 2.7 Proposed audience groups at start of the project

There were four criteria for selecting our audience groups. These and the underlying rationale are summarised as follows:

1. **Age:** To explore the impact of the intervention on a range of age groups, including those much younger, adjacent to, and similar in age to the storytellers.
2. **Life stage:** To reach people who are just entering a new life stage, when they might be more willing to consider new behaviours (i.e. mothers of young children, the recently retired).

3. **Likely segmentation:** To reach a cross-section of Defra's target segmentation groups, especially those segments where the Defra evidence suggests they have the greatest ability to act[6] as well as those most likely to respond to strategies which 'enable and engage' using creative approaches[7].
4. **Host/outside community:** To include an outside community environmental group to help explore the potential for the stories to 'travel'.

Note that criterion '3' was not on the basis of proven segmentation. We did not use the Defra segmentation tool to recruit our audiences, but made some assumptions about their likely segmentation, and then checked these assumptions against the profile data we gathered at the first workshop.

Similarly criteria '1' and '2' were guiding rather than strictly applied. We recorded age bands at each workshop and could therefore only verify the average age was roughly in the right age range. We did not verify the life stage criterion seeking instead to conflate it with age by seeking out the parents of young children on the assumption that they would, at a minimum, have in the past five years had a major change on the birth of a child. We did not however distinguish between whether these were first or later children.

In the table below we show the actual audience groups that we worked with, which varied slightly to the proposed groups in our initial research design (Figure 2.5). We have given each audience group a number and an acronym which we use to refer to them throughout this report.

[6] I.e. Segments: Positive Greens (S1), Waste Watchers (S2) and Concerned Consumers (S3)

[7] I.e. Segments: Positive Greens (S1) and Concerned Consumers (S3)

No	Audience name Acronym in [ ]	Location	Description	Defra segment assessed at WS1[8]	WS1 Date	Total WS1 (M,F)	WS2 Date	Total WS2 (M,F)
0	Target 80 [**Chew-greens]**	Chew Valley	Local environmental group	Positive Greens (S1)	11/11/10	2 (1,1)	Cancelled	n/a
1	U3A/Bowls 65+ **[Chew-65+]**	Chew Valley	65+ age group from local bowls club and university of the third age	Waste Watchers (S2)	7/01/11	14 (5,9)	16/03/11	10 (3,7)
2	Parents and Governors and Teachers **[Wilts-PGT]**	Wiltshire market town	Middle age group connected via community group and governors at local primary school	n/a	11/01/11	8 (1, 7)	22/03/11	5 (1,4)
3	Mothers of young children **[Soms-mothers]**	Somerset village	Mothers of young children connected through church and toddler group	Cautious Participants (S5)	09/02/11	8 (0,8)	05/04/11	7 (0,7)
4	Teenagers **[Chew-teens]**	Chew Valley	Year 8 pupils (12-13) from local school	n/a	25/11/10	30(15,15)	30/03/11	25 (13,12)
5	Climate Friendly **[Wilts-greens]**	Wiltshire town	An **outside** community environmental group	Positive Greens (S1)	30/11/10	18 (5,13)	28/03/11	15 (4,11)
Total Attending					**WS1**	**80** (27, 53)	**WS2**	**62** (21,41)

Figure 2.8 Actual audience groups worked with during the project

The slight variation in our audience groups from plan was mainly as a result of unexpected challenges during the convening process, which we explain below. The result was that we ended up working with three audience groups from outside of the Chew Valley community instead of one, and we only conducted one workshop with Audience Group 0 (T80). In terms of the age profile, life stage and likely segmentation of the final groups we worked with, this was similar to our original plan. The total number of participants who took part in the first workshops was close to our lowest prediction (80 actual, 86 predicted) and the number of participants dropped off slightly to 62 for the second workshops. We had anticipated some drop off before the second workshops, and took measures to reduce this, including offering free local wine and nibbles to participants and offering free babysitting where required. We decided not to offer financial incentives to attend as we felt this was inconsistent with our intention to engage participants as 'co-researchers' in the process.

[8] Explanation to follow later in this chapter about how this was assessed using baseline posters

2.5.2 Convening the audiences

The first audience we planned to engage with was the T80 environmental group, in November 2010. After the low turnout of T80 members to the storytellers launch evening we decided to extend the invitation to the whole of the Chew Valley community, with no restrictions on age, life stage or environmental engagement. We conducted an extensive publicity campaign over four weeks, including putting flyers on lampposts around the village, posters on community notice boards (see Appendix B) and getting an insert in the local press. On the night of the first T80 workshop only two participants arrived.

Researcher reflection

We cannot say for sure why this workshop was so poorly attended (as we did not conduct any follow up interviews with T80 members or the community) but the weather may have played a part. It was freezing cold on this November night. We also had some conversations with former T80 members which implied that the group may have been going through a downward phase of its life-cycle. If we had known this at the planning stage we might have chosen to work with a different group. This suggests that it might be helpful to build in a proper relationship-building phase at the start of such projects, to ensure the right partnerships are made.

We conducted the first T80 workshop as planned, but decided not to proceed with the second one. Instead, we used the opportunity to introduce a final reflective workshop for the storytellers (see phase 6) which had not been part of the original design.

The other audiences that we planned to engage with in Chew Magna included a PTA/Governors group and a Mother & Toddler group. We worked closely with a Head of a local primary school, and the toddler group leader but, despite their enthusiasm, they were unable to attract more than a few people to sign up. We decided not to proceed with these audience groups but to utilise instead the personal networks of two members of the research team to convene similar audiences from communities near where they lived. We were much more successful with this approach and it gave us the unexpected opportunity of being able to conduct our research with three communities outside of Chew Magna instead of just one.

Researcher reflection

Loyalty to, and friendship with, the audience group convenor seemed to be the two most important factors affecting participants' decision to take part (as reported at the workshops). Only two participants (from the T80 audience) had come without knowing either a member of the research team or the audience group convenor, and their motivation for coming was to connect with other like-minded environmentalists in the area. So this suggests it is better to put time and resource into finding, and building a relationship, with well-connected and influential local people who can act as audience group convenors, rather than over investing in 'cold' publicity materials.

Another aspect of our original convening plan was to work with existing groups and to run our workshops during their regular meeting slots. Although we did this with Audience Group 4 (Chew-teens) we did not do it with of our other audiences. After discussion with our audience group convenors we agreed that this was not desirable as it would not give audience members a completely free choice to take part. But the consequence of this decision was that we had to organise separate events in local community halls, which was costly, time consuming and may have had the effect of reducing the number of participants who actually took part.

Researcher reflection

For at least two of our audience groups the workshops seemed to be fulfilling an important social function, which no doubt enhanced the attractiveness of taking part. The convenor of Audience Group 3 (Soms-mothers) expressed a strong preference to meet in the evenings because she felt the mothers would welcome the opportunity to relax, have a glass of wine, and discuss serious issues away from their children. A number of the older participants at Audience Group 1 (Chew-65+) told us they had come out of a desire to make new friends and to reduce the sense of isolation they often felt at home. Thus it felt important to include participants' enjoyment as one of the factors guiding our workshop design and facilitation approach.

2.6 Phase 4: First Audience Workshops

Oct 2010 - Feb 2011 **4 months**	Conducting the first cycle of audience workshops where audiences viewed the stories, engaged with the environmental issue generally and, in an action research setting, developed and discussed possible actions going forward.

2.6.1 First Workshop design

At the first workshops audiences came together to view five of the 8 stories and to reflect individually and collectively on these. The workshops lasted two hours, and we used action research approaches to help participants explore their reactions to the stories and to discuss and develop possible actions going forward.

We designed the workshops to create a relaxed, trusting environment, where participants would feel free to speak honestly about their current behaviours and attitudes. We included different workshop elements to allow both individual reflection on the stories and group discussion, as well as specific exercises to gather baseline data.

The workshops were designed to move participants from a gentle enrolment and base-lining process, onto quiet viewing and reflection on the stories, through to the consideration and capture of possible ideas for action (both individually and as a group). Figure 2.9 below contains a summary of the different workshop exercises and Appendices C to G contain examples of the formative and evaluation materials that we designed and used at the first workshops (which are described in more detail later in the chapter).

Session name	Workshop exercise & purpose	Formative/evaluation instruments
Session 1: 'Getting to know you'	Opening round- names and introductions	Whole group discussion
	Base-lining exercises – capturing current pro-environmental attitudes and behaviours	Defra Segmentation posters (Appendix C) Current actions written on posters
Session 2: 'Responding to the stories'	Digital stories – showing 5 selected stories	
	Individual responses	Story booklets (Appendix D)
	Group responses	Small group discussion
Session 3: 'From inspiration to action'	Ideas for action – thinking, talking, acting for the environment	Small group discussion
	Making individual pledges	Pledge sheet in Action Research diary (Appendix E)
Session 4: Closing	Handing out supporting information Assessing current confidence to take action	Supporting information (Appendix F) Self-efficacy questionnaire (Appendix G)
	Final reflections	Whole group discussion

Figure 2.9 Design of the first workshop

To help participants engage with the concept of 'pro-environmental behaviour' we devised a framework suggesting three possible arenas for action: 'thinking, talking and acting' for the environment (see Appendix H). In session 3, participants were given some illustrations of actions in each of these areas and then were invited to discuss possible actions of their own. We then suggested they could make a 'pledge' against one of these, if they chose to, and share this with the rest of their group. We gave each participant an 'action research diary' in which to write their pledge and to take away with them to capture any thoughts, actions or reflections arising between workshops. We also gave them a list of website addresses for local and national sustainability organisations (which we drew up in conjunction with Defra). They could contact these organisations for further advice or information on any of the issues raised during the workshop. Finally we gave out a list of 'Storytellers Tips' (Appendix F) which the storytellers had compiled to provide more detailed information against their story, and to suggest ideas for action arising from their story.

Researcher reflection

By offering participants an expanded definition of 'pro-environmental action' (through the thinking/talking/acting motif) we were trying to see if this might stimulate even small changes towards pro-environmentalism (such as starting a new conversation with someone) by reassuring participants that these actions were just as 'valid' as the large ones (such as installing solar photovoltaic panels). Thus we were trying to provide an enabling framework for each participant so that they could engage with the notion of change, and step in to action, in a way that worked for them, within the constraints and context of their own lives.

2.6.2 Fitting stories to audiences – selection

Given that we were working within the constraints of a two-hour workshop, we did not believe we had enough time to show all eight stories to every audience, and we felt this was probably too many for people to retain and discuss in that time. So we agreed with Defra to show only five stories to each audience and developed a set of criteria to help us choose between them. Broadly, for each audience group, we aimed to include some stories that would *connect* well with them, alongside others that might stimulate or *push* them.

Through the *connect* stories, we were exploring whether the audience's resonance with the storyteller and the story content might enable participants to see these behaviours as 'normalised' for their age group and encourage emulation. For example, we imagined Pat and Keith's story would connect well with our older Audience Group 1 (Chew- 65+); Pat's story was about supporting local food production and batch cooking for one; and Keith's story focused on the time and dedication that he gave to his allotment. With the *push* stories we were exploring whether showing behaviours, which might otherwise not be considered 'normal' for the age and lifestage of the audience group, might encourage them to try something new. For example, we showed Tim and Keith's stories to Audience Group 2 (Wilts-PGT) because Keith's story asks for a commitment of time which this age-group might not usually devote to such activities; and Tim's story invites participants to go that little bit further with insulation. These criteria guided our decision making and helped us to arrive at the set of five stories (four in the case of the teenagers as this

was compressed into a shorter workshop) that we showed each audience (see Figure 2.10 below):

Storyteller	**Story title**	**Aud 0** CHEW	**Aud 1** CHEW	**Aud 2** WILTS	**Aud 3** SOMS	**Aud 4** CHEW	**Aud 5** WILTS
		Greens Tgt80	65+	Parents Govs	Mothers	Teens	Greens CFB
Helen	Looking forward				x	x	
Tim	Good job		x	x			
Pat	Lucky dip	x	x	x			x
Nick	From the sun	x	x	x	x	x	x
Andy	Why change it?	x			x	x	x
Pat and Ian	Trying to change		x		x		x
Keith	Full of flavour	x		x	x	x	
Country market story	Chew Valley country market	x	x	x			x

Figure 2.10 Stories shown to each audience group

2.7 Phase 5: Second Audience workshops

March-April 2011 **2 months**	Re-convening the audiences for a second cycle of inquiry, exploring recollections of the first workshops and what occurred in the interim.

After the first workshops we allowed an intervening period of two to three months before the second round. We judged that this would give participants sufficient time to follow up their pledge, but not too much time to lose interest in the research process. We decided to have no follow-up contact with participants between workshops (other than sending two email reminders) because we wanted to explore the impact of the stories and the workshops standalone, and we did not have the resource for one-to-one support between workshops.

Researcher reflection

The two emails we sent out to remind participants about the date of the second workshop appear to have an unexpected effect on at least two of our participants. One participant, from Audience Group 2 (Soms-Mothers) recorded her first action, in her Action Research diary, the day after the reminder. Another participant, from Audience Group 5 (Wilts-Greens) told us it had prompted him to act on his pledge because he knew we would be asking him about it the next week. So the reminders appear to have stimulated action, perhaps as a result of guilt, or perhaps out of a sense of accountability to us or the audience group.

2.7.1 Design of the second workshop

At the second workshop we encouraged our audiences to explore their recollections of the first workshop and what occurred in the interim. We used the framework of 'thinking, talking or acting' to gather their reports of environmental action or behaviour change. Our inquiry approach then gave us the opportunity to dig deeply with participants into their personal experience of change and to explore some of the causal and more complex links between the process we were piloting and participants' actual behaviour.

Figure 2.11 details the structure of the second workshop, and outlines the evaluation instruments and materials that we used. Appendices I and J contain examples of these materials.

Workshop 2 session	Exercise & purpose	Evaluation instrument
Session 1: **'Reconnect, resituate, recap'**	Opening round- participants' thoughts & questions since last workshop	Whole group discussion
Session 2: **'My story of change'**	Changes (thinking, talking or acting) since 1st workshop	Pairs discussion & Thinking/Talking/Acting poster (Appendix I)
	Reflecting on the barriers to change	Reflective 'free-fall' writing
	Understanding the process of trying to change	Small group discussion
Session 3: **'Reflections on the research process'**	Visualisation: what might our community look like in the future?	Group comments
	Final thoughts & reflections on process	Small group discussion & comments written on group posters
	Speaking out to others	Message in a bottle (Appendix J)
Session 4: **Closing round**	Changes in confidence to take action Final reflections - What has this process meant to me?	Self-efficacy questionnaire (repeated) Whole group discussion

Figure 2.11 Design of the second workshop

We started each workshop by reminding participants of our research question then giving them a chance to voice their own questions. Some participants raised specific questions related to sustainable technologies they had been investigating, while others raised more philosophical questions, such as the impact of their individual actions on the global issues. We captured their questions and attempted to revisit these during the workshop.

In session 2 we asked participants what had changed for them since the first workshop – in terms of their thinking, talking or acting towards the environment. We used pair discussions to surface their responses and asked

them to capture these on a pro-forma poster. We then gave participants a few minutes to quietly reflect on their experiences of trying to change using free-fall writing. Finally, we moved back into small group discussions and encouraged participants to share their experiences and to discuss any barriers they had faced.

The workshop concluded with participants reflecting as co-researchers on the research process they had experienced. To prepare participants for this reflective session we read out an inspiring visualisation of how communities like theirs might work together to create a low carbon future. We asked for spontaneous reactions to this story before gathering comments and suggestions for how we might improve this intervention and roll it out across other communities. At the end of the workshop we asked participants to write down two 'messages in a bottle' – one to themselves and one to somebody they might want to influence –containing anything they wanted to say as a result of taking part in this process.

2.8 Phase 6: Storytellers Reflections

June 2011	Meeting the original storytellers to update them on the research and to reflect with them on their participation in the process, its impact on their sense of advocacy and their overall learning.

The final stage of the field research was a storytellers' reflection evening, held one year after the launch event. With one exception, all our storytellers came back, and we used the evening to explore the consequences for them of participating in the research. What had been the impact of becoming an 'older' advocate for the environment through the medium of digital story? What had been the impact on those around them? This workshop was intended to complete our cycle of inquiry with the storytellers and to help us answer research question 3 (see Figure 2.10 below).

We asked them to fill out on post-it notes what from the stories they still recalled and what conversations ('talking') they had had about the research. We also asked them to discuss any new pro-environmental actions they had engaged in since first joining the programme. We then gave them some feedback on the reaction of each audience group to the story suite, and to their stories individually. We concluded with a whole group discussion focusing on the impact on their confidence and ability to advocate to others, and reflecting on what they had learned about themselves.

2.9 Evaluation instruments and their effectiveness

As explained earlier, our approach to evaluation was formative, iterative and participative. Our research questions, workshop design and the evaluation tools we used were regularly reviewed and adjusted. Figure 2.12 below restates our substantive research questions as they stood at the end of the field research, and indicates the evaluation instruments we used to help us address each of these.

2.9.1 Summary of evaluation instruments

	Research question	Evaluation instrument
1	**Digital stories:** What impact does watching the digital stories have on the pro-environmental behaviour and advocacy of the participants?	**Storybooklet:** Immediate, individual written responses to digital stories **Pledge sheet:** Intention to change at end of workshop 1(pledges) **Defra segmentation posters, Baseline of actions posters (workshop 1) and Thinking/talking/acting posters (workshop 2):** Self reported baseline of actions/advocacy and reported changes to these between workshops 1 and 2 **Self-efficacy questionnaire** **Researcher observation and reflection on discussions**
2	**Action research:** How does taking part in an action research process enhance the impact of the digital stories on participants?	**Post-it notes and group poster:** Written and verbal responses in workshop 2, to the process overall and the individual workshop elements **Researcher observation and reflection on discussions**
3	**Storytellers:** What is the impact on the storytellers of taking part in this process?	**Post-it notes:** Tangible behaviour change/advocacy since starting the programme **Researcher observation and reflection on discussions**
4	**Cross Community effects:** How does the impact of the digital stories differ between the storytellers' host community and outside communities?	**Storybooklets:** Written comments from participants **Researcher observation and reflection on discussions**
5	**Collective ties & durability:** What are likely to be the enduring effects of this intervention on the participating communities?	**Self-efficacy questionnaire** **Researcher observation and reflection on discussions**

Figure 2.12 Substantive research questions and associated evaluation instruments

In Figures 2.9 and 2.11 above, we showed how we incorporated these evaluation instruments into our two workshop designs. Our intention was

always to explore our substantive research questions *and* conduct a piece of research of value to our participants, so we designed most of our evaluation instruments to have both a formative (learning) aspect and an evaluative purpose. The instruments could however broadly be categorised according to how they fed these twin aims.

We now summarise each workshop instrument, listing its aims and the specific research question(s) it was addressing. We also reflect on its effectiveness. These comments are based on our observational data plus participants' comments from session 3 in Workshop 2. However, they should be read with a degree of caution since it is hard to be precise about the impact of each instrument individually, since they were used in conjunction with each other, as part of an overall action research process. This section is included to provide some insights into what elements might be included when conducting future participative action research projects of this kind.

Instrument 1: Defra segmentation posters

Overview	Description	Formative/learning aspect	Evaluation purpose & research question(s) addressed
Interactive poster session to baseline and make visible pro-environmental attitudes and behaviours.	On posters, participants used dots to respond to questions based on Defra segmentation research reflecting attitudes and beliefs about the environment. Group also recorded current pro-environmental activity and behaviours at start of workshop 1 At workshop 2 they were invited to track any changes in these attitudes.	Creates awareness within the group of similarities and differences on environmental issues. Opens the space to discuss these Allows participants the possibility to critique the segmentation questions At workshop 2 allows participants to make visible any changes of attitude	Research question 1 Audience profile/indicative segmentation helps explain differences in response between audience groups Base-lining of pro-environmental actions tracks starting point for group. Re-stickering of attitudes at workshop 2 tracks impact of process on reported attitudes and beliefs about the environment

Reflections on its effectiveness: We agreed these worked very well and at multiple levels. The posters delivered a rough indication of the environmental attitudes of the group that was valuable and supported our interpretive work. However crucially it did this in a way that made differences and similarities visible and so opened a discussion about these. This enhanced the potential for ideas to be shared in some workshops so that peer-to-peer learning could start to take place during that session and in subsequent discussions. Revisiting the posters at Workshop 2 worked well and encouraged a small number of participants to make visible the effect the process had on their attitudes and behaviours. Though this was not as accurate as the segmentation questionnaires (which we had used with the storytellers) we found that it did open a more reflective, dynamic conversation on segmentation and pro-environmental attitudes and this fed into our findings.

Instrument 2: Storybooklets and group discussion

Overview	Description	Formative/learning aspect	Evaluation purpose & research question(s) addressed
Storybooklets	Booklets with 5 questions per digital story which participants fill out individually during two-minute gap between viewing each story	Opportunity for participants to gather and articulate thoughts before group discussion	Research question 1 Capture immediate impact on individuals of story and storytellers (before group dynamics start to have effect) Capture whether storyteller was known/not known to participant
Group discussion	Small group discussions facilitated by an action researcher using guided question sheet	Opportunity to share participants' thoughts on the stories, discuss these in more depth, and develop these further by hearing from others	Research questions 1, 4 Deepen understanding of impact of stories and storytellers on participants. Gauge collective response to the stories and storytellers. Gauge effect of knowing/not knowing the storyteller

Reflections on effectiveness: We found the storybooklets worked very well in combination with the group discussion. As hoped the booklets gave participants time to capture their immediate responses to the stories before the dynamics of the group discussion took effect. All our audiences engaged with this reflective exercise enthusiastically, and we reflected it was particularly helpful for quieter participants to be able to gather their thoughts before entering the group discussion, thus ensuring the discussion was more inclusive and more evenly balanced. Thoughts in the booklets often made their way into the discussion suggesting the booklets supported participants to enter the conversation at a deeper level. The booklets also provided us with vital data on the impact of the different stories on different audiences that we drew on extensively as an evidence base to drive our interpretive work. This was then further supported by the taped group discussions.

Instrument 3: Self-efficacy questionnaires

Overview	Description	Formative/ learning aspect	Evaluation purpose & research question(s) addressed
Self-efficacy questionnaire	Questionnaires completed at end of both workshops, asking participants about their confidence to take action	N/A	Research questions 1 and 5 Tracking participant's confidence to make a change to their pro-environmental behaviour Also by looking across groups intended to track effects of process on collective confidence and enduring consequences

Reflections on effectiveness: This was the only purely qualitative instrument we used with our audiences and, as designed, it gathered the data we sought. A detailed description of our self-efficacy methodology and findings is given in Appendix K. Chapter 4 will discuss these findings and will refer to the factors that may have led to minimal effects being found, particularly with our collective efficacy evaluation. The low impact also raised interesting questions about the degree of impact that might be expected from a design involving just two workshops. Overall then the use of this more standard qualitative research instrument in a program like this is recommended. It complemented and, to a large extent, supported what our reflective analysis also found. With some adjustments to the self-efficacy scoring approach the individual self-efficacy analysis certainly provided some interesting insights though if used over a longer period could be effective as a formative and as an evaluative instrument.

Instrument 4: Pledge sheet & Action Research diary

Overview	Description	Formative/learning aspect	Evaluation purpose & research question(s) addressed
A pledge sheet and supporting action research diary	Pledge with proposed action recorded at end of workshop 1 and taken away as part of action research diary. Diary offered tool for participants to chart actions and reflections between workshops.	Supports participants to formulate an intention to act Supports participants to record and reflect on their response to the research in the intervening time	Research questions 1, 2 Effect of stories and the process on creating an intention to act Research questions 1, 5 Effect of the process on supporting participants to follow through on their intentions and to make sustained changes

Reflections on effectiveness: The act of making a pledge at the end of Workshop 1 appears to have been only sporadically successful at stimulating action, with two or three participants from each workshop reporting they had carried out their pledge. The majority of participants reported they had forgotten, or not revisited, their pledge in the time between workshops. Some participants actively resisted this exercise because 'pledging' had negative connotations for them, arising from other areas of their life. Our conclusion is that pledging may be useful for some, but it needs careful framing to present it as optional not compulsory, to avoid the dangers of such negative connotations.

The action research diaries on the other hand clearly had a positive impact for a small number of individuals in most groups. They were most systematically used by two to three participants in each of the Wilts-PGT, Soms-mothers and Chew-teens audiences. Two Soms-mothers commented that it had been helpful to have the diaries to remind them of their pledges and to record their actions between workshops. We wondered if perhaps the diary fitted well alongside the other lists this busy group must continually maintain. For two of the teenagers, their completed diaries demonstrated a level of engagement with pro-environmental activity that did not surface in the workshops – we surmised perhaps due to peer pressure. Our conclusion was that it was a helpful reflective tool for some, a useful written reminder for others and of little though neutral value to a larger majority of participants.

Instrument 5: Supporting information

Workshop instrument	Description	Formative/learning aspect	Evaluation purpose & research question(s) addressed
Supporting information handout	A handout with 'Storytellers' Top Tips', plus a list of local and national sustainability organisations given out at end of Workshop 1	Supports participants to follow through on their intention to act	Research questions 1, 2 Effect of the process on supporting participants to follow through on their intentions

Reflections on effectiveness: We had no evidence that the information we provided was used by any of our participants and conclude that this particular instrument was not very effective. However, the need for information to support people to take action was articulated repeatedly. This information ranged from specific issues to a broader need for advice and help in decision-making. For example the Chew-65+ group wondered where they might get clear impartial information about certain low carbon technologies. Whereas Somerset mothers were pressed time-wise and just wanted the information about what realistic steps might help them take meaningful action. So we conclude from this that a degree of factual information could have enhanced the impact of the digital stories, but we were not able to fully explore what form this should take within the scope of this pilot project.

Instrument 6: Posters to record pro-environmental 'thinking, talking, acting'

Overview	Description	Formative/learning aspect	Evaluation purpose & research question(s) addressed
Individual posters for participants to record any pro-environmental activity since Workshop 1.	Posters at start of Workshop 2 where participants record what pro-environmental thinking, talking and acting that has occurred in the intervening time since Workshop 1	Gives participants time to reflect and articulate what they have done, to reconnect with the research and so prime their voice for group discussion Primes them to also reflect on what has enabled or prevented them from acting.	Research questions 1, 2 Captured information on the nature of participants' advocacy and action between workshops, and the barriers to action they may have experienced.

Reflections on effectiveness: These self-completed posters worked well in helping gather tangible evidence of the actions (in the broadest sense) the intervention had stimulated. They also appeared to work well for most audience groups in Workshop 2, and we particularly noticed some of the Chew-teens filled them in most enthusiastically. We reflected that this exercise might have allowed the more reflective teenagers to express themselves fully, away from the dynamics of peer pressure (which we comment further on in Chapter 4). By contrast, some of the Chew-65+ audience struggled to complete their posters and we reflected that this older group might have found the posters too much of an 'exercise' for them. We found that as a group they were noticeably more engaged during the group discussions when they had the chance to share stories. However we also reflected that some of these older participants may have been resisting the assumption that the research was in any way responsible for actions they would have taken anyway. This led us to some important reflections about the distinctions between a pro-environmental 'learning' and a pro-environmental 'change' space that we discuss in Chapter 4.

Instrument 7: Reflective exercises – writing and visualising

Overview	Description	Formative/learning aspect	Evaluation purpose & research question(s) addressed
Free-fall writing	Five minutes for participants to capture their personal thoughts and feelings by writing freely	Allows participants to pause and reflect on their experiences of trying to change	N/A Writing was not collected
Visualising communities of the future	A fictional story picturing a community like theirs taking pro-environmental action and sharing and creating new stories of change together	Appealing to a non-rational, more visual approach to support or inspire participants to engage in collective action to bring about this future in their community	N/A However spontaneous comments indicate potential effect of process on inspiring collective confidence to make change

Reflections on effectiveness: These two instruments were used primarily to help deepen learning for participants both individually and collectively. As such the effectiveness cannot really be measured. However, from the audience response to the exercises, we can speculate. Free-fall writing was only used with two audience groups (Chew-65+ and Wilts-PGT). It was well received by the Wilts-PGT audience, who said they enjoyed the chance to engage in some personal reflection mid way through the workshop. We observed that it worked less well for the Chew-65+ group some of whom were not particularly comfortable with it and unsure as to its purpose. We concluded that it could be a useful reflective tool for those audiences who, in our opinion, were pre-disposed to engage in self-reflection in this way, but not for all audiences. The visualisation exercise in workshop two preceded an action planning section in all workshops. All the audiences sat quietly and attentively throughout the story, and some participants expressed some very thoughtful comments at the end, but it was hard to assess exactly how much impact this exercise had on their motivation to take collective action, as we were not able to follow up after Workshop 2.

Instrument 8: Action and planning exercises

Overview	Description	Formative/learning aspect	Evaluation purpose & research question(s) addressed
Reflections on the process	Small groups capture comments/suggest-ions on pro-forma posters on how to improve the process, and ideas for scaling up/replication. Ideas then shared in whole group discussion	Opportunity for participants to act as co-researchers, contributing their ideas to future research design Also potential for group to formulate collective action plans	Research questions 1, 2, 5 Participants' reflections helpful to gauge effectiveness of whole process (and individual elements of it) in stimulating individual and collective advocacy and action
Message in a bottle	Participants record a message to someone they would like to influence and a message to themselves	Aid participants to formulate what they take from the research and what next steps they might now take. Stimulate the potential for on-going action	Research questions 1, 5 Effect of the process on participants' sense of advocacy Opportunity to gauge potential for enduring consequences

Reflections on effectiveness: It is hard to assess the effectiveness of these exercises standalone. On the basis of the messages that some participants wrote to themselves and to others, the message in a bottle exercise perhaps helped reinforce a sense of influence and advocacy that had started to emerge for some participants during the workshops. A large number of 'messages to self' expressed encouragement to keep going with the actions they had begun. Amongst the 'message to others' there were some exhortations to collective action from the Soms-mothers (including starting up a veg box scheme, and encouraging lift sharing). However, we have no evidence that these intentions developed into firm actions after the workshops. This was mirrored in the wide range of creative ideas that emerged in the process co-research session. Several good and realistic ideas emerged at this stage and there is some evidence that participants went on to work with stories (see Chapter 4). Overall these instruments were effective in a small way, they contributed some valuable basis for our interpretive research and they showed that many participants could feel inspired, for a moment at least, to formulate advocating positions and action plans. They suggest too a limitation in the design. Had participants been able to have more support over time, some significant individual and collective action may have resulted.

2.10 Evaluation: data analysis

As the previous section highlights, our workshops yielded a wealth of field data, both from the evaluation instruments described above, and also our taped recordings of the whole group and small group discussions. We collated all written material after each workshop. We also listened to all the recorded conversational material, highlighting and transcribing key quotes and passages of conversation. Additionally after each workshop each member of the research team wrote reflective field notes where their impressions as well as their reflections on emerging themes were noted alongside our interpretations of the material of the workshop we were processing.

The diagram on the following page shows the pathway from the raw data set after each of the 12 workshops (five audience workshops and two storyteller workshops) and illustrates the process of iterative research analysis that took place. After each workshop series we then came together in supervision to reflect on these write-ups, and to begin distilling key themes and noting emerging questions and areas of interest. Though all our material was processed, we did not then proceed to code and analyse findings in the standard way (with the exception of two instruments: the self-efficacy questionnaires and the Defra segmentation questionnaires given to the storytellers). In this way, we were using different data sources to validate and deepen our understanding of what we were observing in the groups. This is in keeping with the 'line of inquiry' action research approach introduced in Figure 1.2 and shows how our mixed methods approach, coupled with a strong reflexive practice, allowed us to arrive at an evidence base. This evidence has its roots in data in the first instance, but has also been produced through a rigorous and extensive data analysis process, and well- grounded interpretation, speculation and narration.

Alongside this approach to research analysis we were also working with the narrative approach that lay at the heart of the project. We wanted to keep sight of the overall stories of the audiences and storytellers with whom we were engaging. In our research sense-making sessions worked also in narrative mode – drawing out alongside the emerging themes - some key stories that seemed to be particularly indicative of those themes and of the research in general. These stories helped us pay attention to the particularities of the situation, the ups and downs of the participant's intentions and the timeframe when things happen. To that end our reflections caught the emerging storylines of our own research together with the stories of some of our participants. By a careful process of numbering each participant and the

materials they worked with (which included storybooklets and even the dots they used on posters) we were able to ensure that all our written research outputs could be tracked back to individual participants so that we could cross-reference our research 'findings' (see Chapter 4). The result is what we call a 'grounded narration'. These are our research 'tales from the field' that appear in Chapter 3.

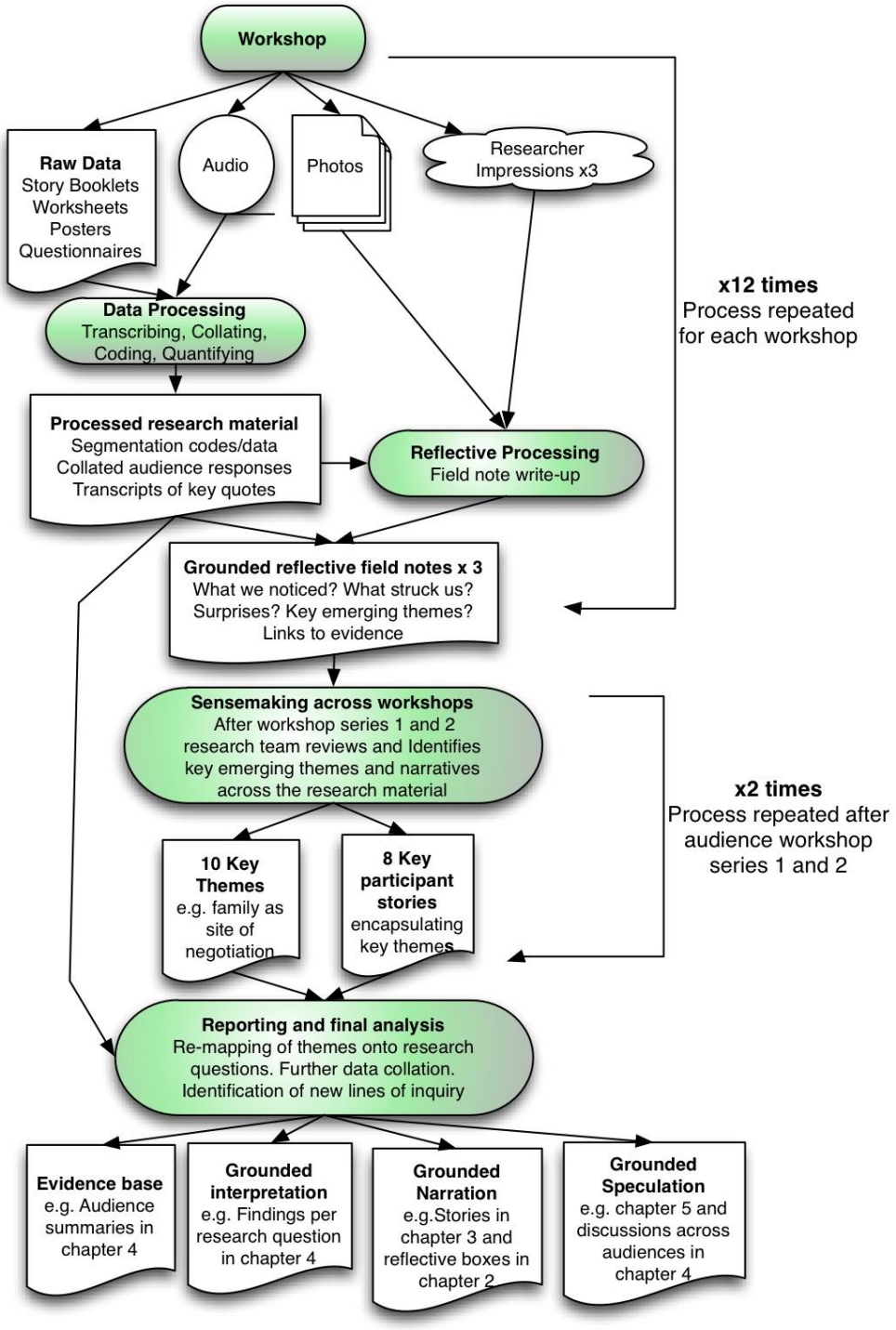

Figure 2.13 The data analysis flow - from raw data to report

2.11 Limitations due to research methodology

Whilst we believe our evaluation approach was robust, and our findings can be fully validated against the material we generated, we also wish to point out a number of limitations with the research methodology and design. These limitations are summarised below and are categorised according to those limitations that were pre-determined by our research design and those that became apparent during the process. Many limitations derive from the small scale and limited duration of this pilot project and to an extent the qualitative approach we took. As a result generalisations to the whole population cannot be made, and drawing wider inferences from the findings in this report will necessarily be speculative.

2.11.1 Limitations that were foreseen at the start of the research

1. Socio-economic & ethnic diversity: The storytellers and the audiences were all drawn from predominantly white, middle class and rural areas. The level of ethnic and social diversity was therefore not representative of the UK.

2. Segmentation: The segmentation of the audience groups was assessed using questions derived from the Defra segmentation questionnaire, but not completely based on this. So direct comparisons with previous Defra segmentation research may not be valid.

3. Non-homogeneity of sample: The criteria of life stage and age were not strictly applied to audience selection. Furthermore two audience groups were of mixed age groups. Thus conclusions drawn on the basis of age or life-stage are, to an extent, diluted. Also the potential replicability of the approach on the basis of these two criteria cannot be fully proven.

4. Sample size: The composition of the audience groups was self-selecting, and the sample sizes were relatively small. Therefore a limited range of views and potentially Defra segments have been represented. Where possible, we have indicated how many participants in each group represent a particular point of view, but this has not always been possible with participative research of this kind.

5. Longitudinal effects: The research programme involved just one cycle of action and reflection across two workshops. This may have reduced the potential for participants to take action, and also reduced our ability to gauge the enduring effects.

6. Level of researcher engagement: We did not engage with participants between workshops, partly to test the effectiveness of the process on a

‘standalone’ basis, and partly due to resource constraints. Therefore we cannot properly assess how much difference this kind of intervention would have made to the project outcomes.

2.11.2 Limitations that emerged through the research process

1. Bias: A number of participants were already known to the research team. In particular the Soms-mothers audience group was based in the home community of two of the research team and several participants were known to them. Similarly the Wilts-greens audience was the home community of our third researcher and the Wilts-PGT audience had been recruited via personal connection. We had no evidence that these connections effected the research negatively. However there is a possibility that there was a positive effect. In particular the Soms-mothers’ high level of engagement (reported in Chapter 4) may have been enhanced as a result of loyalty to the research team with whom some participants were friends.

2. Age gaps: Some age groups that may have been important were not included in our sample. For example we only worked with teenagers aged 12-13. Older teens might well have a better understanding of environmental issues and be more equipped to advocate effectively within their peer, family and community settings. Also our sample did not include many young adults in the 20-35 age-group, yet unexpectedly our co-researcher in this age-group made several changes to her behaviour. So this younger life-stage, where significant and sustained environmental choices might be set in train, was not explored in our research.

3. Support between workshops: Though we had planned to have no contact with participants between workshops, we found that even e-mail reminders about our 2nd workshops prompted action for some participants. This suggests that inter-workshop support may have been a means to stimulate greater impact from the intervention.

4. Factual information: Whilst we gave participants some supporting information at the end of the first workshop, the low participation of the wider Target80 group in Chew Magna meant we were not able to produce material that was fully tailored to the content of the stories or to the local context. This kind of ‘cascaded advocacy’ within the community had been our original plan as a way of stimulating greater community action. Our conclusion is that the materials we provided was neither adequate nor specific enough to support participants’ inquiries

into new behaviours and new technologies and several participants expressed a need for such information to support new actions.

5. Low engagement with storytellers: The impact of the research process on the storytellers' advocacy and our ability to explore outcomes with them was limited. Our research design had focused on workshops with the storytellers at the story creation phase but not afterwards. An additional workshop was scheduled as this limitation became apparent but we believe the storytellers could have benefitted from more time at the end of the process, to help them develop individual and collective action plans for how they might advocate using their finished story. It might also have been helpful to have kept them better informed about the response from the audience groups earlier in the process, as this lack of feedback inhibited some storytellers from showing their digital story to others.

This concludes the chapter on methodology. The next chapter presents our 'tales from the field'.

3 Tales from the field

In this chapter we introduce a series of short stories, each featuring one or more of the participants in our research that we hope will evoke for the reader what the research was like, and bring it to life through the participants' voices (both written and spoken).

The term 'tales from the field' follows the ethnographer Van Maanen's (1998) description of realist, narrative approaches to presenting the experience of research. The intention here is, through stories, to demonstrate the impact of the research on our participants whilst also showing the research process in action and highlighting some of the unintended consequences of the research. In short these stories go beyond the idea of a case study or illustration to paint a rich and integrated picture against which the themes, findings and conclusions of Chapters 4 and 5 can be contextualised. As they enhance the research findings we suggest these 'tales' are best read before or alongside Chapter 4. However they also work standalone and can be read at any stage.

Chapter 2 has described our data analysis process and the way in which narration was built into our research process in a grounded way by developing those storylines that seemed resonant and indicative of important research themes. But our choices in what stories to tell were also partly instinctive. We honed in on those vignettes from workshops that gave us, as a research team, most cause for reflection and discussion and so had within them subtler, more nuanced observations as well. Not all such vignettes are featured here. Nor are all our audiences. So this is just a sample from the field of research that evokes, in a situated way, some of the patterns of experience and conversation that occurred across our workshops; this illuminates some of the methodology and our reflections set out in Chapter 2

It is important to note that these authored, reflective stories are, to an extent, subjective. On the one hand the material in this chapter lies close to the research data; to write the stories we drew on direct quotes from transcripts, photos, extracts from evaluation instruments and our grounded interpretive material. On the other, the subjective storytelling voice of the researcher is present in the stories we tell and also in our choices of what to tell.

As researchers therefore we own up fully to the subjectivity in this chapter. In writing these stories we have, in places, speculated about why participants might have reacted in one way or another. We recognise that in so doing, we

are intruding, to a degree on our participants' motivations, thoughts and feelings. We cannot possibly know these truly. In light of this sensitivity, we have anonymised those featured in our stories. This is with the exception of our storytellers who are featured in the first story and who have kindly agreed to be featured openly in this research. We thank them and all those featured below once again for their invaluable engagement in this research.

3.1 How to read this chapter

The stories that follow can be read in any order. In this chapter we are inviting you as a reader to engage differently than in other parts of this report. We are intending here to be congruent with the premise of our research – which is that stories speak for themselves: they convey and support learning by showing rather than telling. In presenting the stories, we have resisted the urge to over-interpret or present you with too much meaning. We have acknowledged our subjectivity. As a reader you are invited to draw your own conclusions and in a way to become a co-researcher too. What themes, outcomes, unexpected consequences do you notice on reading? What conclusions do you reach?

Whilst reading it may be useful to refer to the table shown in Figure 3.1 below which lists (a) the storytellers and their stories, and (b) the audiences they were shown to during the participant workshops. Each story that follows is given a reference number which is used again later to help the reader cross-reference the findings in Chapter 4.

Story ref Number	Storyteller / Audience Group	Research participant story[9]	Story titles shown to audience group
S1	Helen	Looking forward	See below
S2	Nick	From the sun	See below
S3	Keith	Full of flavour	See below
A1	Chew-teens	Zoe, Grace and Anna *Growing green shoots of advocacy?*	Looking forward – Helen's story From the sun – Nick's story Why change it? – Andy's story Full of flavour – Keith's story
A2	Wilts-PGT	Sue *Integrating the public and the private*	Good job – Tim's story Lucky dip – Pat's story From the sun – Nick's story Full of flavour – Keith's story Chew Valley country market – Country market story
A3	Soms-mothers	Isabella *Making new discoveries*	Looking forward – Helen's story From the sun – Nick's story Why change it? - Andy's story Trying to change – Pat and Ian's story Full of flavour – Keith's story
A4	Chew-65+	Jean *Why us? Resisting the 'call to action'*	Good job – Tim's story Luck dip – Pat's story From the sun – Nick's story Trying to change – Pat and Ian's story Chew Valley country market – Country market story
A5	Chew-65+	Bill and Margaret *Green technologies and the Waste Watchers*	Good job – Tim's story Luck dip – Pat's story From the sun – Nick's story Trying to change – Pat and Ian's story Chew Valley country market – Country market story
A6	Soms-mothers	Ruth and Vicky *Different kinds of change*	Looking forward – Helen's story From the sun – Nick's story Why change it? - Andy's story Trying to change – Pat and Ian's story Full of flavour – Keith's story

Figure 3.1: Research participant stories and the related audience details

It may also be desirable to view the digital stories at any point so the link is repeated below:

http://www.vimeo.com/album/1469229 (password chewmagna)

[9] The names of our audience participants have been changed.

3.2 Storytellers' stories

These stories describe the experience of taking part in the research from the perspective of three of our 50 plus storytellers. These storytellers all started with different experiences of acting and advocating for the environment, and with different motivations for taking part. Their individual stories describe their journey through the research process, and culminate with an idea of the impact it had on them personally of becoming digital storytellers and having their advocacy expressed in this way.

S1: Helen's Story

Figure 3.2: Helen reflecting on outcomes in our storytellers closing workshop in June 2011

Helen is a busy lady in her late 50's/early 60's who is married to Tim (one of our other storytellers) and who is still trying to juggle full time work with the demands of being a wife, mother and grandmother. Helen's digital story describes how she learnt the skills of 'make do and mend' during her childhood, and how she is now trying to pass these on to her daughter and granddaughter.

When we first met Helen, at the storytellers' launch evening, she seemed keen to take part in the research but also slightly anxious about it. She expressed concern at the amount of time it would take her and whether she had an

interesting enough story to tell. Helen said that she did not consider herself a natural storyteller, or a particularly strong advocate for the environment. She scored herself as a Concerned Consumer on the Defra segmentation questionnaire, and expressed some guilt about the amount of flying that she and her husband did.

The first real opportunity that Helen had to start developing her story was at the Storycircle day in June 2010. Unfortunately she and her husband were flying back from holiday so they missed most of the day and the opportunity to develop their storyline and confidence as storytellers, alongside the rest of the group. But Helen worked hard with Lisa from Storyworks over the summer to create her story and when she saw the finished result she told us she was very pleased. She later reflected on how working with Storyworks on a one-to-one basis had allowed her to express her story in a more powerful and emotional way than she had previously thought possible:

> *Lisa's tremendous skill, and the confidence she allowed us to have in her and the production, I think enabled us to share things with her very comfortably. It was almost a trust/friendship relationship which I think gave a greater depth to the story*[10].

While Helen appeared pleased with her finished story, it would take a while longer before she was in a position to show it to others as a tool for advocacy. At the end of the storytellers' screening workshop we gave each of the storytellers a DVD of their story to take away with them. We asked them whether they might show it to others. Helen cautiously replied:

> *I think now we've seen the films we might do*

But when Helen returned for the final storytellers' workshop a year later she reported that she had not shown her story to anyone although she told us she had been inspired enough by the content of the other stories to start up conversations with people. On a poster she recorded:

> *Have used ideas gained in stories to encourage environmental issues in others.*

[10] Unless otherwise noted, all quotations in this style are drawn directly from taped and transcribed material from our workshops.

As the evening progressed Helen reflected on why she might not have felt comfortable showing her story to others:

> *I think maybe one of the reasons I haven't shown my story to anybody is because I was unsure of what the reaction was going to be.*

But after we had shared some of the positive feedback on her story from each of our audience groups she remarked:

> *I'm quite humbled and inspired in some ways on your comments back... and now I know the reaction that you've had it almost inspires me to actually do something about it.*

It seems that the positive feedback had boosted Helen's confidence in her ability to advocate in this way, and by the end of the workshop she was talking about showing the film to her family and friends and suggesting that we use the digital stories as a training resource in the future, commenting that:

> *These videos are potentially timeless.*

Apart from the impact on her confidence to advocate it appears that Helen was also motivated to engage in some new pro-environmental behaviours, although she still felt constrained by the demands of her busy lifestyle to actually implement these new behaviours:

> *It's given me lots of thoughts and ideas as I move into the next stage of my life. I'm still currently working and very busy like these other people, but one day I will enter that grand scene of the retired!...so I'm very grateful.*

S2: Nick's Story

When Nick joined our group of storytellers he was already acting in multiple ways for the environment, and his knowledgeable comments suggested that he was a very committed environmentalist (this assumption was borne out by his strong Positive Green score on the segmentation questionnaire). His digital story describes how he helped his local primary school (in his role as caretaker) to install solar photovoltaic panels and to create a wildlife garden and recycling facilities.

Figure 3.3: Nick having lunch at the Storycircle day in June 2010

At the first storytellers' launch event Nick appeared modest and quietly spoken, yet he came alive with a passion when he spoke about his love for the environment and his longstanding attempts to get people to reduce their carbon consumption. His knowledge of low carbon technologies was impressive and he was soon regarded as the 'expert' of the group on technical matters with some other storytellers seeking out his advice when they could. Keith (one of the other storytellers) commented in the closing round of the storytellers' launch event:

> *I want to pick his brains before he leaves here tonight!*

The role of low carbon expert/environmental advocate was clearly one that Nick had been occupying in his community for a number of years but, as the evening progressed, it became apparent that he had lost faith recently in some of the more direct approaches he saw the government taking to try to change people's pro-environmental behaviour:

> *People might feel a bit jaded by the threat of the green police as it were – the government regulation forcing you to do things.*

He explained that he was interested in the potential of stories to move people to action, in a way that more direct or 'preachy' forms of advocacy could not do:

> *I was interested in the storytelling aspect because, as Pat says, you don't change people's minds by preaching at them. And it's always intriguing storytelling because it's a bit of a lost art in some ways, a sort of tradition that's gone by the by with the mass communication that we've got these days and I think it might be really effective…I'm hoping it works and I'm proud to be part of it.*

At the first storytellers' evening and the subsequent Storycircle day in June we recognised that the challenge for Nick would be to construct a story with a clear, single storyline that would highlight his emotional connection with the environment as well as his technical knowledge. Lisa from Storyworks and the team worked hard with him to do this, and together they developed a story focused around his genuine concern for the next generation, and his motivation to act on their behalf. When we showed Nick's film to our audience groups it met with universal approval, with many participants commenting on his genuineness and authenticity as a storyteller. The audience responses suggest that the digital story had allowed Nick to show a more reflective and caring side to his personality than he might usually achieve with his technical style of advocacy.

At the final storytellers' evening, Nick reflected on the impact on him personally of taking part in this process. His comments suggest that he enjoyed the reflective aspects of the story creation process, and this had given him a helpful reminder of all the ways that he and others were already acting for the environment:

Digging out all the photographs made me think a bit and remind me of things.

Nick told us that taking part in the process had not encouraged him to engage with any new pro-environmental behaviours, but it may well have affirmed his commitment to keep going with his current ones:

I think it just sort of reinforced things…sometimes you feel you're on your own – but you just do it anyhow.

His parting comments also suggest that creating his digital story may have helped him express his advocacy more clearly, and capturing his story in this form may provide him with a useful tool for advocating to a wider audience in the future:

It was good, through my experience of making the story, to be able to focus on a particular aspect, because I find it a bit difficult to do that. It's not something that you often do really in ordinary life because you do what you do and there are lots of different strands that you pull in, so it was good to do that.

It focused my attention on the whole method of storytelling and how effective it is...having a recording like that, that's permanent in a way, and you can show it to a lot of people rather than repeating yourself.

S3: Keith's Story

Figure 3.4: Keith warming up his story at the Storycircle day in June 2010

Keith is a retired policeman in his 60's who was attracted into the research after meeting the research team on their visit to Chew Magna. Although Keith scored himself as a Positive Green, his experience of advocating for the environment was much less extensive than Nick's and his pro-environmental behaviours revolved mainly around his passion for his allotment. At the storytellers' launch evening Keith expressed some strong views about resource conservation (he explained this was partly in the interests of saving money) and the avoidance of waste. He hoped the digital stories would help his generation get this message across to the generations below:

> *We're all over a certain age and we come from a generation where we've had to scrimp and save, that was put over to me by my parents, we didn't have a lot of money and I carried it on and my kids will carry it on whereas a lot of the youngsters these days just throw things away before …and somehow we've got to get this over to the younger generation and I hope that was this is for.*

In terms of Keith's confidence as a storyteller, he explained that the process of talking to groups was very familiar to him, through his experience as a policeman:

When I was in the police service I used to go around talking to other policemen about inner city policing...so it wasn't really a new experience for me to talk about something like that because I did it in my job but I'm probably not as good at it now 'cos that was 25 years ago, but I was then.

But this experience was based on telling his stories orally, rather than through the medium of a digital story. Advocating in this way would be a totally new experience for him which, he admitted, left him feeling quite daunted:

At the start (I thought)– oh why have I got involved in this! (laughter).

At the Storycircle day Keith demonstrated his natural ability as an oral storyteller by speaking passionately about his allotment, and about his experiences in the police force. The group responded very positively to Keith's story, so he decided to capture this on paper, rather than risk forgetting it:

I actually wrote a script. I wrote it all down because I thought there's a lot of stuff I could forget on the day….I was happier doing that than leaving it to memory.

Lisa from Storyworks spent an enjoyable couple of days working with Keith over the summer, and on one of these days they went to his allotment, to take photographs and capture some impromptu reflections as they talked together. The finished film proved to be one of the most popular of the entire suite (alongside Nick's) and Keith seemed reasonably pleased at the result though he had a few nagging concerns about how his produce looked on film and wondered if his voice had come across okay.

In terms of the impact that taking part in the process had on Keith personally, we were all delighted at the final workshop when he told us how he had taken his finished film to the local primary school. He described how he had almost formed a connection with the school before, when they had asked him to help with their allotment, but he had not taken them up on their offer. This time he had taken the DVD into the school, fully expecting them to show it to a number of their classes, but had been disappointed to find out two months later that they had not. With the final storytellers' workshop only a week away, he went back into the school and this time persuaded one of the teachers to show it to

her class of six year olds. Keith was delighted at the children's comments, which the teacher had captured, and enthusiastically read these out at the final workshop:

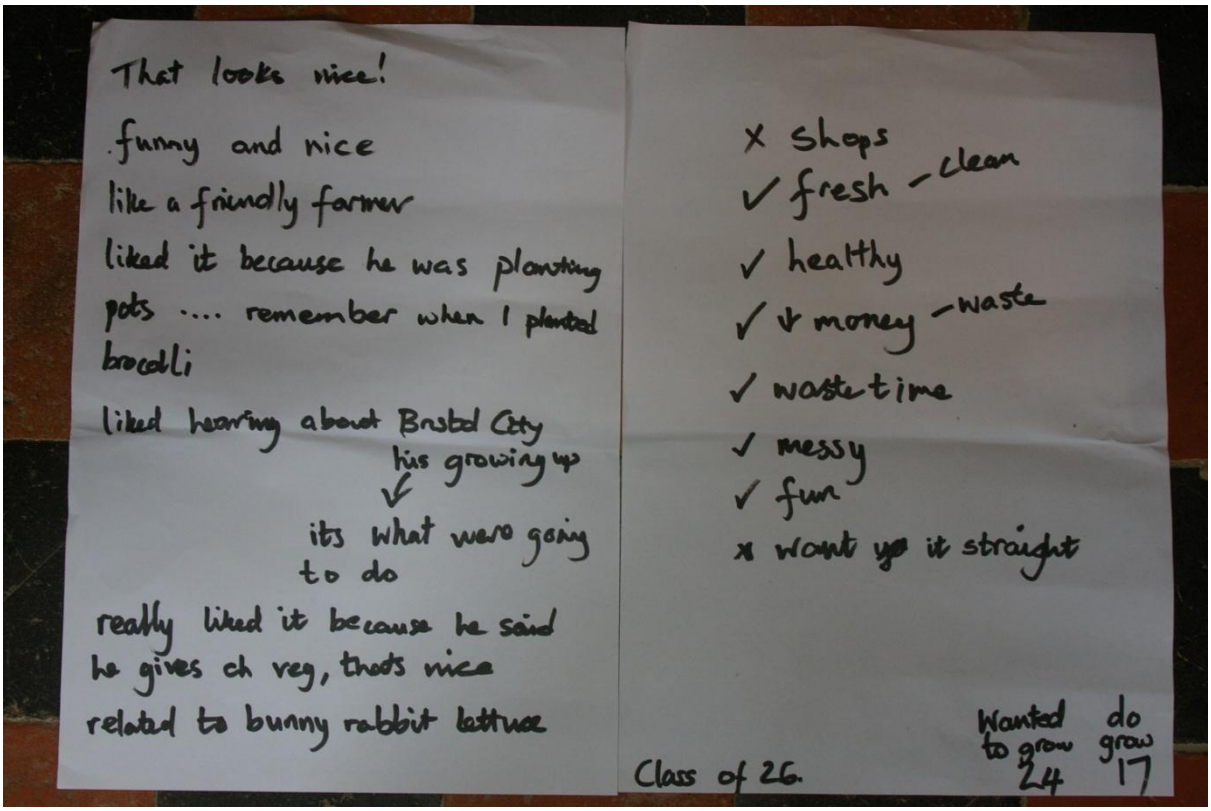

Figure 3.5: Keith's own research with the local primary school

This positive experience of advocacy seemed to embolden Keith to try it again. He explained how he was now going to encourage the teachers to show it to the much older children in the junior school, as he thought 'they'd probably appreciate it more'. He had also discussed with his daughter taking it in to his grandchildren's school, and she seemed keen on the idea.

> *I think a copy of the videos should be in every school there is in our area – junior and senior schools -with an introductory message to say what it's about, and then see whether they use it?*

Keith's closing remarks suggest that he felt the digital stories had considerable potential to carry messages from the older generation to the younger generation, which was the hope he had expressed at the beginning of the process:

> *It's an untapped resource [older people's stories]. Somebody said to me when I left the police force, you've got all that expertise now you're not going to use it, all you're going to do is some gardening. Which is right – it should be used.*

And in terms of the impact on his own behaviour, the process seemed to have helped him reflect on his current actions and opened the door to some potential new ones, which he was still planning to ask Nick about:

> *I think I've enjoyed it. I've certainly learnt several things. It's made me realise how … I do try and save money by the things we all do, and there are other things I could do as well. Wind energy – I'm quite interested in that and we haven't really touched on that at all. I'd like to look into wind energy as well as Nick's panels to see which is the best – I'm gonna ask him later.*

3.3 Audience stories

The following present six research stories that feature the research participants from our audiences.

A1: Zoe, Grace and Anna: Growing green shoots of advocacy?

A story about how three young teenagers were enabled by the research to find possibilities to speak for and act on environmental issues in their family settings.

Figure 3.6: Teenagers - high energy & readiness – but ill-equipped to know what actions to take

Working with some 30 Year 8 (aged 12-13) pupils from the Chew-teens audience we were struck by their high energy and enthusiasm on the one hand, but their sense of disempowerment on the other. This, we reflected, was partly due to a lack of understanding of environmental issues which was evident at the workshops, but it also came about from this generation's own perceived lack of influence:

Researcher: *Everyone wants to know what you have to say ….what do you think about that?*

Participant: *Well they ask us but they don't listen.*

In Workshop 1 we were prepared for a negative response to our stories from older storytellers. Yet we were surprised by the general tone of appreciation and respect they expressed in discussion:

It is good to see that the elderly care about us.

They've lived more so they've got more to say like to us.

With the caretaker, he's not just a caretaker, he wants to do things for the school.

However, clearly they also had difficulty relating to the stories: Andy's joke, '*people think I'm mad'*, that had caused laughter in other audiences passed unnoticed. Where these young people made a personal connection it was via their own older family members. This was particularly the case with Helen and Keith's stories. For example, when asked what they most related to in Keith's story, two pupils wrote:

Pupil 1	The (remarks) of his wife – just like my mum
Pupil 2	Me and my dad grows veg and we eat them

Figure 3.7: Excerpt from storybooklets – Workshop 1

And of Helen, 9 of 22 respondents mentioned their grandmother when asked how they related to her story in the booklets. As a research team we wondered at the chasm between this age group and the storytellers and what, if any, impact seeing the stories would have.

When we returned three months later results at first seemed mixed. A range of typical pro-environmental actions was reported – but we wondered at the impetus and significance of such actions. Were the pupils just 'doing their homework'? And what role had the research really played in stimulating these actions? The teenagers remembered the films when prompted, yet only two participants recorded on their worksheets that they had actually shown or talked about the film to others. These were two girls, Grace and Zoe and when

we probed into their experiences between workshops an interesting story emerged.

Zoe	I told my family about Keith and Helen
Grace	I told my family about Nick's, Keith's and Helen's films and described them

Figure 3.8: Excerpt from action worksheets in Workshop 2

In Workshop 2, Grace and Zoe sat next to each other in the group of 10 in which they worked. They were mature for their age and were confident. They spoke easily in front of their peer group (which was mixed boys and girls) and were listened to when they did.

As the group discussion unfolded, it became apparent that these two girls had particularly worked on persuading family members to change behaviour. From their worksheets it seemed they had mentioned the films as part of a broader attempt to influence matters at home. Zoe had been looking at the behaviours of her Dad and sister and was trying to influence them:

> *My sister lives in a flat and she didn't recycle much and I told her about this and now she does.*

> *My Dad drives everywhere – my Mum's got health problems she can't go that far – and we've got a local shop but my Dad drives to the one that's further away. And we can just walk to the local one. So I've been getting my Dad to let us walk places.*

Referring to her action diary, we saw that Zoe had pledged at the end of session 1 to talk to her parents and had followed through on it.

24/11/2010 Pledge Grow more fruit and veg
Talk to parents about what we could do to help the environment
10/2/2011 Spoke to my sister about recycling because she never used to recycle
21/2/2011 Planted some vegetables

Figure 3.9: Zoe's action diary

Grace, on the other hand, had pledged to conserve water in the garden. But in the interim it seemed she had also developed a strategy to influence as well

as to act. When she returned she reported how she had been working on her Mum.

I persuaded my Mum not to use the tumble dryer – she uses it quite a lot.

The girls contrasted with other participants in the nature of the advocacy they were reporting. It was specific, directed and linked to action. Most participants reported conversations at home about the workshops but with little indication of the nature of these conversations. They contrasted too with participants who had taken direct rather than influencing action. The best example of this was Anna who sat at the end of the same table as Grace and Zoe at Workshop 2. Anna was quietly spoken and reticent. Above the loud chatter she was hard to hear and needed encouragement to speak, but beside her, in her folder, was her action diary which looked to have been fully completed. This later revealed that in the intervening period between the workshops, she had taken systematic action on many fronts at home with her parents. Unlike Zoe and Grace, her actions were not those of persuasion, but more personal to herself:

I turned the lights off when we left the room.

Or to do with becoming more involved or aware of what her family already do:

Mum knitted a patchwork scarf from old clothes.

Anna had at the end of Workshop 1 pledged to turn her old pond into a wildlife pond and, dated the very next day in her action research diary, she reported it was done.

By the end of the second workshop both Zoe and Grace seemed to be interested in continuing with the advocacy the workshops had already set in motion. Both declared the personal intention to do more, and crucially to get their families to do more.

During the ‘message in a bottle exercise’, Grace’s message to herself at the end was:

> *Recycle as much as I can and get family to do as much as possible as well.*

Zoe's message to herself was similar:

> *Grow more vegetables and walk more, get family to not use as much electricity.*

It seemed the sessions had helped Zoe and Grace find their voice and the support to advocate for more pro-environmental behaviour, and the research showed that a continuum of prompting was needed to encourage this to flourish.

Interestingly, by the end of the second session, Anna also expressed on her 'message to others' a desire to find influence:

> ***To my Family:*** *Please try to recycle more and reuse things as much as possible, yours sincerely* ***Anna***

Were these then the tentative green shoots of advocacy, grown in young people through working with and hearing older people's stories, who themselves were finding a new voice on the issue?

A2: Sue: Integrating the public and the private

A story about how one participant from the Wilts-PGT audience explored environmental issues as they related to both her public role and to her private life. Through the research she was able to consider what action meant for her in both contexts.

Sue is a head-teacher at the primary school that hosted our Wilts-PGT audience group. A community garden project was just getting off the ground at the school and, as our research seemed to link well to this project, Sue had agreed to support the research by offering the school as a venue and by attending herself. In the opening round of the first workshop she said she had come because she was interested in sustainability though she said 'she didn't do nearly enough'.

In Workshop 1 Sue responded very positively to the films. Some responses related directly to school life with Nick's film standing out the most for her. In her booklet she wrote how inspired she was by his care '*for a long term future – and an interest in children's future'*. And overall she wrote:

> *What an amazing inspirational caretaker! Wish he worked for us at (our school).*

Yet Sue's responses to other stories showed a more personal connection, a desire for a quieter, less busy life. Of Keith she wrote in her booklet that the part she most related to was:

> *Time/quiet. Time for reflection when spending time in nature.*

In the group discussion Sue described how the films reminded her how much she enjoyed the peace and quiet of nature. In discussion other participants also expressed feelings of longing and nostalgia. Some idealised Chew Magna as a place out of time - 'the perfect place'. For others it was 'like something out of 'Miss Marple' too unreal to be true. It seemed for Sue however that the films stimulated feelings of loss and absence. Of the country market film she wrote:

That last film was about community spirit, keeping communities alive. I really worry about the break-up of communities – people not being able to stay in their villages.

As the workshops progressed, Sue would explore this loss and yearning in a more personal way though, by the end of Workshop 1, she noted the difficulty integrating 'school' environmental action with these more deeply held views. When writing her pledge to go forward she commented:

There's lots for the school...I find this really difficult to separate...you see I really related to what Nick was doing in terms of aspiring towards a green flag status and that's what our school is trying to do.

The researcher reflected in her field-notes at the time: 'It felt like the 'professional' Sue was quite comfortable with what she was doing through her work at the school, whilst the 'private' Sue was feeling guilty about not doing enough. Had the workshop stimulated responses from Sue's multiple personae that were not always easy to reconcile?' In the end Sue recorded two pledges – one to do with supporting and making proper space for eco-initiatives at school and the other to do with conserving water at home.

Sue returned to Workshop 2, this time in casual clothes and from the start seemed less guarded and more relaxed. She remarked as she came in 'this is how I feel comfortable'. When it came to talking about the impact of the films she reported a two-fold effect that reflected the public/private divide she had started to explore in Workshop 1.

At school level there had been a significant impact. Since the workshop Sue was using her influence to make space for environmental enthusiasm and championing within the school. In discussion she said:

It's made me focus on giving people more opportunities, enabling them to initiate their own projects, to raise the profile, allow them to fulfil their visions in terms of school. It's not just paying lip-service to it, ticking a box – there are so many people who have a vested interest in eco-projects and it's giving them the platform to do that.

She herself had taken several actions - for example getting low-energy appliances installed and sourcing more in-season fruit. In discussion she could reflect on all these school-level changes - she worried that whilst enabling

some staff members, she might be becoming a nag to others. Yet her newfound awareness of how much waste there was at school meant she could no longer ignore it. Overall she had been stimulated to explore different ways of influencing and enabling her pupils and staff on issues she knew to be important. And one of these new approaches was storytelling itself. Sue reported how at a school assembly she'd decided to try 'just telling the story' of an Indian tiger conservation trip she had been on. She was surprised and enthused by what had happened. One pupil had been inspired to share with her his wide knowledge on the subject. She had subsequently encouraged him to conduct an assembly himself, thus finding his own way to talk about what was important to him. Thus Sue's shift in awareness not only had an impact on her but was also having an impact on others at the school because of her position of influence there. And she had gone past content of the films to explore storytelling itself as a way of influencing.

Beyond the school, Sue also reported a significant impact on her personally. In Workshop 2 she reported how the workshops had re-kindled for her a dream, an aspiration, that 'quiet' life that she had first hinted at in her response to Keith's film:

> *We've always had this dream about being self-sufficient, going somewhere like France and growing our own vegetables and I think that has been raised again.*

In a very reflective and thoughtful way, Sue shared a dream that she and her husband had always had which was to get out of the 'rat race', even though she loves her job and the children.

> *It's quite a selfish thing in a way but it's come to the fore again.*

The group listened and affirmed and empathised with this.

Figure 3.10: Participants doing free-fall writing in Workshop 2 – the space is designed to allow them to not only report actions but also reflect on what these actions mean.

It felt significant that Sue had the space to bring and articulate this dream in tandem with her reports of action on the school front. Whether she goes on to realise it is another matter. But we wondered if Sue's confidence with creating space in the school context was enabled, in part at least, by reconnecting with what was important to her; enabling her to get past the day to day demands of her current work-day setting and to exert some not inconsiderable influence.

A3: Isabella: Making new discoveries

A story about a busy mother discovering a whole range of new ideas through watching the stories and hearing from her peers, and, through putting these into practice at home, strengthening her relationship with both her husband and her community.

Isabella is the mother of a two-year-old daughter and was our main point of contact for the parent and toddler group we worked with in Somerset (Soms-mothers). Isabella was well connected in the village through the strong network of relationships that she has built up over the years with other local mums and members of the parish church.

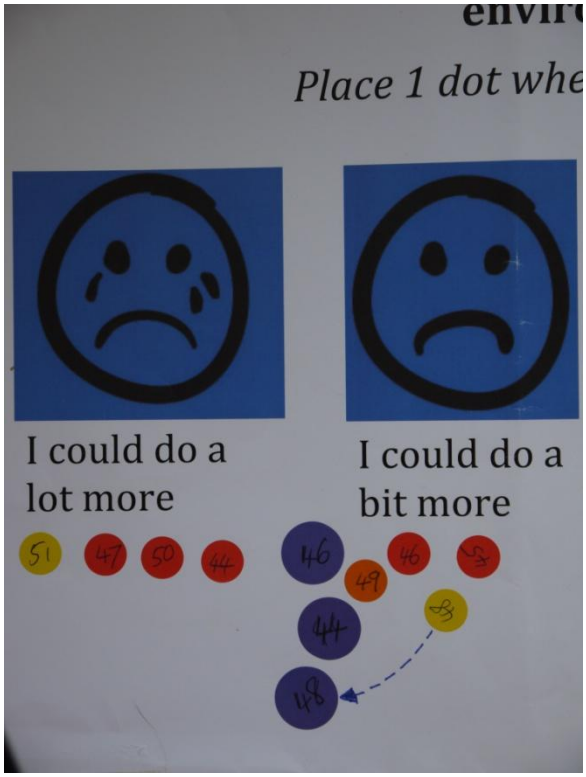

Figure 3.11: Isabella's shift in view between Workshops 1 and 2 (from yellow to purple) in terms of what she felt she could do for the environment

When Isabella first arrived at Workshop 1 she struggled to think of many pro-environmental actions that she currently engages with, other than recycling. She felt she could 'do a bit more' for the environment but that was all. Yet by the end of Workshop 2, something had shifted for her. She expressed a strong desire to act and a belief that collective action in the community was a way forward. How had this happened? In this story we track Isabella's journey through the research process.

As she watched the films in Workshop 1, Isabella's comments in her storybooklet suggest that she was beginning to pick up on new ideas for action from the films. These ideas covered both individual action (Andy) and collective action (Nick):

> *Some simple but very effective ideas. Interesting that ordinary people can play a part.* ***(Isabella's comments on Andy's film, Workshop 1).***

> *Quite a big project – actually happened – very interested in how they did that.* ***(Isabella's comments on Nick's film, Workshop 1***).

By contrast, Isabella seemed to discount the actions demonstrated in Keith and Pat and Ian's films (whilst not discounting the storytellers themselves, as she described Keith as a "charming man sensitive and caring"). This seemed to be connected to the perceived difference between their lives and hers, in terms of the time they have to take action:

> *The joy he gets from taking time to grow vegetables is infectious just wish I had the time to do it!* ***(Isabella's comments on Keith's film, Workshop 1).***

> *Less able to relate to this couple – they have a lot more time and calmer lifestyle than I do* ***(Isabella's comments on Pat & Ian's film, Workshop 1).***

Following the screening of all the stories, the audience broke into small discussion groups and Isabella had the space and opportunity to raise an issue that she clearly resonated with in Andy's film. Andy had described how he felt torn between his desire to reduce his air miles, and his love of taking foreign holidays. During the discussion Isabella explained that her husband takes frequent flights for his work, and the family take a long haul flight to South Africa every year to visit her brother. She offered this explanation, partly a defence and partly an excuse, for why it is so hard to get people to stop flying:

> *To say to people you can't have a holiday is a difficult one particularly because the price of these things has come down – and travel really broadens the mind.*

The opportunity to have an honest discussion about her dilemma then allowed the rest of her group to offer a possible solution – why not try carbon offsetting? This was something Isabella had never heard of before, and when she returned back to the second workshop she was very proud to report that not only was she now carbon offsetting all their flights, but she had also discovered a box on the form that she could tick to make a donation to charity, which made her feel even better about herself. So a virtuous cycle of action had begun for Isabella, inspired by the content of Andy's story but also the catalytic effect it had on the group discussion, allowing other ideas for action to surface and be shared.

But the action that Isabella had engaged in between workshops was much wider than just carbon-offsetting and had involved her thinking, acting and talking in many new and different ways

Acting:
Purchase more from local shops rather than supermarkets
Started to use food bin
Booked flights and offset carbon
Had jumpers knitted by a member of the community

Thinking:
Hybrid cars
Attempting to generate less waste e.g. food
The stories shown on film inspired ideas about possibilities for change

Talking:
My husband about the project in his office about using heat generated by machines in air-conditioning project

Figure 3.12: Extracts from Isabella's completed poster at Workshop 2

She talked very enthusiastically about the changes she had made and some of her comments echoed of pleasant surprise:

> *I've gone to Waitrose less- partly it's not easy to get there – but now the weather's getting better the whole farm shop experience is just great!*

She explained about how much her enthusiasm for cooking had increased as a result of shopping at the farm shop, and that cost was not a deterrent to her. Overall she reflected:

The more you do things like this, the more it reminds you, you can do more.

And Isabella had also considered action within her community. One significant action she had taken was to accept an offer, which an older lady in the village had previously made, to knit her two-year-old daughter a jumper. Isabella described how she had enjoyed the process of selecting a pattern at John Lewis, choosing fair-trade wool for the jumper, and how she had been absolutely delighted at the result, as this photo clearly shows:

Figure 3.13: Isabella shows off the knitted jumper

Apparently the lady who knitted it was equally delighted to support Isabella and her daughter in this way. Isabella was very clear that it had been Helen's film that had inspired her to act. These are her comments on Helen's story at the first workshop:

> *Real interest in traditional behaviour - make do and mend rather than buying her things. Passing on traditional activities – knitting, sewing v important as they are generally dying out. Extremely creative and socially responsible person – warmed to her a lot. Very heartening story*. ***(Extract from Isabella's storybooklet at Workshop 1).***

And this is how she attributed her actions to Helen's film at the second workshop:

> *It was that knitting lady and the community working together – I mean I can't knit but to support someone else to do it for my daughter.* ***(Extract from small group discussion at Workshop 2).***

This suggests that it was not only the inter-generational aspects of Helen's film that appealed to her, but also Helen's apparent commitment to the community and society as a whole.

As well as taking forward a series of actions, Isabella also used the time between workshops to engage in some new conversations around sustainability, especially with her husband. She described at the second workshop how her husband had always been more knowledgeable about environmental issues than herself, but how the workshops had prompted her to ask about the actions he was taking at work (in his role as head of a small IT company):

> *I went home and said I want to find out more about what you've done there. And then he said – why don't you look at a Lexus hybrid for your next car.*

So now the discussion space had opened up fully between them, and it seemed to put the discussion on a more equal footing, with both partners feeling able to ask questions and suggest ideas for change at home. Thus the workshops had not only inspired Isabella to experiment with some satisfying new behaviours, but they had also brought her into closer partnership on the issues with her husband, providing a mutually supportive environment within which they could make sustainable lifestyle choices together.

A4: Jean from Chew-65+: Why us? Resisting the 'call to action'

In this story we see some of the challenges faced by an enthusiastic lady in her 60s when faced with the 'call to action' implied by the research workshops. We get a glimpse too into the lack of confidence some of this generation may feel when it comes to making changes or influencing others.

Jean arrived at our first workshop, on a blustery January day, as one of the participants from the U3A group joining members of the Chew Stoke Bowling Club to make up our Chew-65+ audience. As Jean arrived she exuded the air of a lively and friendly lady in her late sixties and in the opening round of the workshop she said her reasons for coming were mainly social – to meet new people from the village and take a look inside the Bowls Club (she lived just down the road).

Figure 3.14: Members of the Chew-65+ audience representing their current attitudes and behaviours on the baseline posters at Workshop 1

Environmental issues did not overly concern Jean as such. On our baseline posters she stickered:

I'm happy with what I do for the environment.

And of the environmental crisis she stickered:

> *It is all too far in the future to worry me.*

Yet as she viewed the films, she resonated with many of the storytellers and the actions they portrayed. She noted that she was already doing similar things, and that this was 'normal' for people her age:

> *We all do it but I never thought of it as saving the environment… and…I go to that butcher too! (Jean's comment on Pat's story, from her storybooklet).*

> *Shopping locally – as you get older you do that… (Jean's comment on Pat & Ian's story, from her storybooklet).*

But there were two stories that did seem to stand out to Jean, for different reasons. The first story was about the Country Market and it told her something about her community that she didn't already know:

> *I did not realise what the market was – I live in Dundry. Made me decide I must go. (Jean's comment on Pat's reference to the Country Market in her story, from her storybooklet).*

At the end of the first workshop she pledged in her Action Research diary to:

> *Go to the Country Market to check it out.*

The second story, from Nick, seemed to make an impact because it challenged her preconceptions about solar energy:

> *"I'm afraid I'm sceptical about whether solar heating generates enough heat and is worth doing…however…" (Jean's comment on Nick's story, from her storybooklet).*

Throughout the research we often found our participants explored things in discussion they had written down in the booklets and this was the case here. In the group discussion that followed Jean took the opportunity to voice her

thoughts and this prompted an interesting exchange with a man in her group who had down-sized recently, and installed solar photovoltaic into his new 'eco-house':

> ***Jean**: "I'm sceptical whether it works?"*
>
> ***Jim**: "I can assure you it does…a lot of people think, say with water panels, that they're filled with water. They're not, their filled with anti-freeze and it heats up a lot quicker than water and it's the generation of the heat from the anti-freeze that warms the water."*
>
> ***Jean**: " But how do you get the heat to the house? I mean, is it efficient?"*
>
> ***Jim:** "It uses gravity, it just comes down from the roof."*
>
> ***Jean:** "Alright, I don't know much about it, sorry."*

We noticed how the combination of Jim's confident position *("I can assure you it does")* backed up by his apparent technical knowledge seemed to have closed down Jean's inquiry. The researcher later reflected that, though Jean seemed to have enjoyed the session overall, she had remained fairly quiet for the rest of that discussion. How often, we wondered, did patterns of conversation like this inhibit non-experts from sticking with their questions in relation to complex environmental matters?

When Jean returned to the second workshop, just over two months later, the researcher asked her if she had continued her tentative inquiry into solar energy, or whether she had been along to the Country Market? Jean had not and felt surprised by this:

> *I haven't done very much, which is unusual for me because normally I'm very interested in new ideas.*

Over the course of the subsequent discussion Jean started to explore – unprompted by the research team - what might have held her back and came up with a few possibilities:

> *I was interested at the last workshop but didn't have the time to do anything about it.*
>
> *I wonder if it was the wrong time of year… because I sort of hibernate in the winter don't you?*

I think we did it at the beginning of our lives. We were so careful…it's the younger generation really that are the future.

We reflected in our field-notes that our questions about outcomes from the workshops might have unwittingly prompted a cycle of guilt and self-defence in Jean. It was with some relief that she later recalled that in fact she had taken action – she was using the local farm shop more. Nevertheless she continued to reflect through the workshop on her own inaction and these reflections throw light more generally on the barriers to change in her generation:

When we get to our stage in life…we feel we're more at the stage of observers, so therefore we're not the people who can make any difference… …I'm winding down on life, I want to sit back and let the others do it, I worked bloody hard …I'm kind of slowing down a bit, I'm enjoying slowing down a bit.

In a way she was asserting the rights of her generation to rest and resisting the 'call to action' in the workshops. But other comments suggest she may also have been suffering from a lack of confidence in her own ability, and that of her generation, to influence and advocate to those from the generations below:

We wondered if you really want to know what we think, cos there's a bell curve and we're on the downward slope – I'm winding down on life really. Young people are the energetic ones. Why do they want to know what we think? Do we know enough to tell them or are they interested? Are we the right people to be asking? …Why are you targeting 50 plus year olds?

Jean was not the only older participant to question in our workshops if they were the right people for us to be working with. But her questions felt rooted in personal as well as general doubts. Despite being a lively, enthusiastic participant, she asked a few times in session *"Am I helping at all?"* In a later poster Jean wrote:

I am not a 'thinker' – think that's my husband's strength. He comes up with solutions. I am the action lady.

It felt that Jean was offering us a glimpse into some of the reasons why this older generation – and women in particular – might feel doubtful about advocating or playing an active role in relation to pro-environmental change.

A5: Bill and Margaret: Green technologies and the Waste Watchers

In this story we follow an older couple who live in an 'eco-house' and through their questions we begin to understand more about the motivations of this particular generation with respect to green technologies.

Bill and Margaret are a sociable couple in their 80s who participated in the Chew-65+ audience group. Two years ago they moved into an eco home which they had enjoyed showing off to friends and neighbours alike. But at the beginning of the second workshop we heard hints from Bill that he might be concerned about his purchase. He was keen to make a point about the cost of environmental technologies. Are they really paying off?

> *Whenever anybody talks about environmental things, nobody seems to talk about the cost. We've installed solar PV [photovoltaic panels]. But it's not only that. We see three different rubbish collection vehicles, they're all brand new, they're all wonderful vehicles now I would imagine each of those must have cost probably £100,000 each. To implement these things is a big cost.*

His concern about cost was a theme that came up frequently with this older group as we inquired together across the two workshops. They made much mention throughout of being 'of the war generation'. To them the need to conserve resources, not to waste electricity or food for example comes as second nature. We began to understand that these 'waste not want not' values are the real inspiration for the premium that Bill and Margaret paid for their eco house, much more than any desire to be seen as keeping up with the times.

As such they were impatient to see results in economic terms. The house was not yet making the savings they had hoped for. In the first workshop Bill quipped that he hadn't yet seen his first cheque from his electricity provider for the excess photovoltaic generated electricity sent to the grid. He complained wryly that they made their purchase of the house before the most recent incentives became available. And while as a part of their active social life they were more than happy to show curious visitors around and answer their questions they always avoided sharing their concerns. In our researcher reflections we wondered why this might be. Perhaps there was an element of guilt – were they concerned to admit that they might have kitted out their home with the most recent technologies whilst still not being really sure the investment would definitely mean they could be less wasteful than before:

We've been constantly asked by visitors to our house about how the house works and we tend to gloss over the whole thing but between the two of us we also look at the bills.

As soon as we broke into smaller groups in the second workshop they were keen to raise with the researcher a specific question about their home. Were the solar panels worth the significant investment, in particular was the house an 'intelligent system' in the way it used energy?

I do have one query regarding the washing machine, a new washing machine, could fill from rainwater but we need electricity to feed the water up (from a collection tank in the basement). Would it have been better to have had a washing machine on mains water - bearing in mind that we heat a lot of our water from the solar panels on the roof and we really only use that hot water for washing ourselves and not for washing clothes? You've got all this hot water which isn't necessarily all being used - that's the question I wanted to ask somebody. Using rainwater isn't necessarily the best thing. If you use rainwater you've still got to have electricity every time you flush the loo!

Their question was brought to our research workshop. Perhaps they assumed that we, as researchers, could be assumed to be experts? Who else could they go to? Not their friends, that was clear. And from what was being said over the two workshops it seemed unlikely they would feel confident going to the younger generation either. Nor did it seem there was a high profile voluntary body or government agency they could turn to, to disentangle this particular problem.

The small discussion group to which Bill and Margaret brought their concerns could not provide the answers they were seeking. So the discussion moved on to advocacy. Despite the issues with their house, they were interested in how they could promote the principles of their lifestyle across the generations. Margaret remembered that at the first workshop, her group had concluded that it might be more helpful to concentrate on their grandchildren than to try to persuade the adjacent generation to change their ways:

At the last session, the group that we were in decided that we'd do better to skip talking to our offspring because they think we were preaching but go straight to grandchildren.

Her plan was to get them growing vegetables in her garden, though even these efforts she expected to be discounted:

Every now and again I invite them to help me so at least they get some hands on knowledge of putting things in the soil and watching things grow. But parents don't necessarily bother to eat some of the food that's produced. Because they're so used to buying everything.

As we drew to a close, we asked how useful had this experience of taking part in the research been, even though there would inevitably be unanswered questions? Here is what Margaret said. She had clearly put to one side her concerns about her house:

It's been useful. I'm not surprised by what other people say. We are most of us of a certain generation that's done all these things but still it's interesting to know how the information goes on or is not going on further down the line – it's more relevant today than perhaps it ever was.

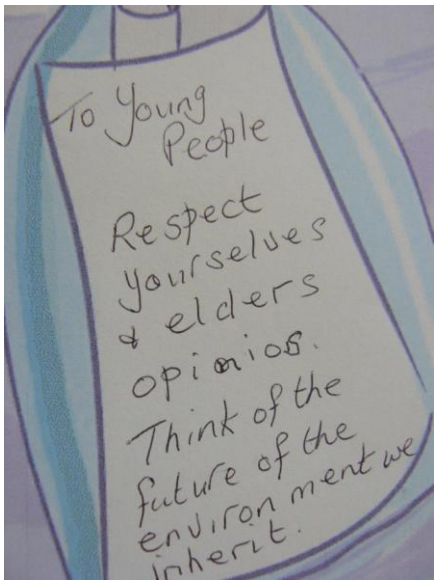

Figure 3.15: This 'message in a bottle' from one Chew-65+ participant is directed at the future generation

For Margaret and Bill their concern primarily was for the future generation as summed up by this message from one of the Chew-65+ audience when invited to address a message to whomever they felt was most important as a result of the workshops.

A6: Ruth and Vicky: Different kinds of change

In this story we follow two mothers who started out with similarly constrained and busy lives yet followed different paths through the research as they explored how they might change their pro-environmental attitudes and behaviours.

Ruth and Vicky both attended the Soms-mothers audience workshops. Both were mothers of young school-age children and like others in this group were actively involved in village life via the school, the church and the local village shop. At the first workshop both Ruth and Vicky were sceptical about the environment. When asked in our poster session about the environmental crisis, Ruth stickered 'it's been greatly exaggerated', whilst Vicky stickered that 'it was too far in the future' to worry her. Yet by the end of the second workshop both had chosen to re-dot their clouds as the picture below shows. What had happened and what did this mean?

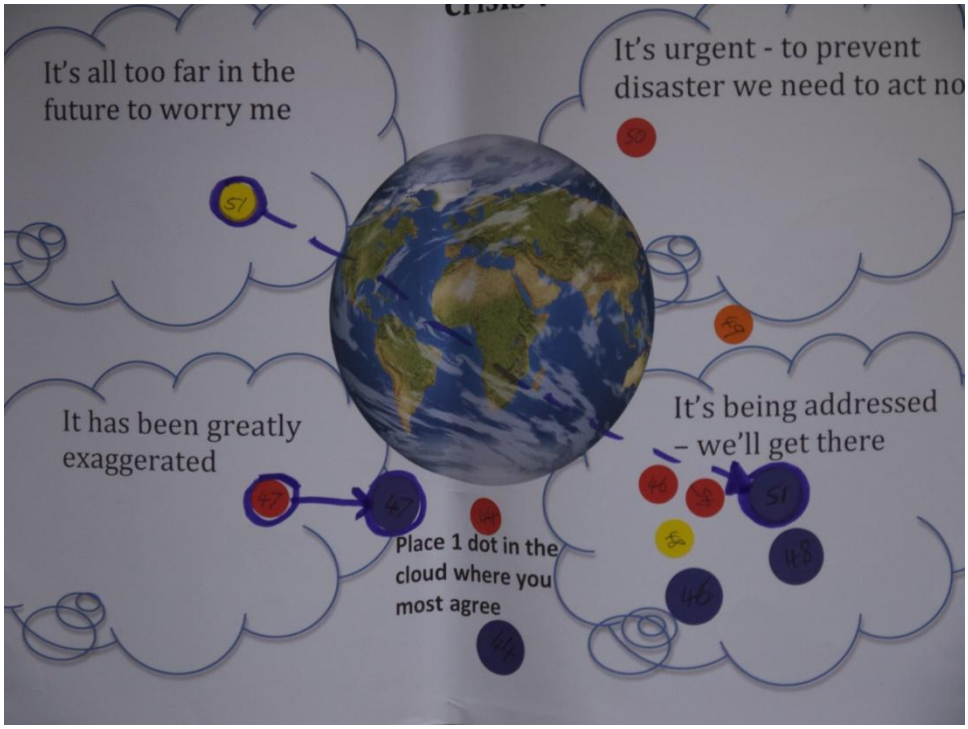

Figure 3.16: Arrows show the shift in Vicky (yellow) and Ruth's' (red) views on the environmental crisis

Ruth's movement on the poster was only marginal – she was casting doubt now over her original stance that the crisis had been exaggerated. This may not seem like a dramatic shift, but more surprising perhaps was the list of actions that she had taken between meetings:

- Tried to be more conscious about saving energy at home
- Demonstrating good practice to daughter and explaining why is important to save energy/water/resources (Tiny things like if I was emptying half a glass of water or emptying a bottle down the sink using it to water the plants but also trying to work with my daughter on things that we can do, trying to instil that sense of saving resources at an early age)
- More conscientious about keeping up recycling
- Gave old toys/boots/clothes to charity shop
- Tried to shop more locally and to buy more locally sourced products
- Use my own bags more

Figure 3.17: Extract from Ruth's 'thinking/acting/talking' poster at the start of Workshop 2

Clearly something significant had occurred. In Workshop 2, Ruth explained what happened the morning after the first workshop:

> *I did talk about it in the playground the next day and it did provoke a bit of a debate. I used to do a huge amount more and there was this terrible sense of guilt that I wasn't doing what I could and hearing what other people were doing, and seeing what the people were doing on the films made me think well actually I'm being a bit lazy here. I can just sit here and say I haven't really got time to do this, but other people are, so that's not really a very good enough excuse. It makes you re-evaluate your priorities.*

It turned out Ruth has a history of environmentalism. She was a vegetarian at 16, an early user of recycled products and an anti nuclear campaigner. By any measure at an earlier time in her life she was a 'Positive Green'. What had happened to these old values?

> *Since my daughter came along I haven't had time to think about it and also haven't had the space to do it properly, but a lot of it is just habit really, getting back into those old habits again. I you do it without thinking about it doesn't really take that much time, it's just training yourself to do it.*

Ruth had found that behaviour change just needed a little bit of self-discipline, and ventured that it is possible for everyone. Yet in the discussion Vicky disagreed. There was more to it than that. Vicky, in common with Ruth and in

fact the rest of this group, described her life to a large extent as defined by a constant battle with time. Here is her reaction to seeing the digital stories in Workshop 1:

> *I don't relate to people who have loads of time on their hands, with small children you don't have loads of time.*

When Vicky arrived at the first workshop, like others she reported that her foremost pro-environmental contribution was recycling, but that it took half her Wednesday's. While she thought this worthwhile, it was yet another drag on her time:

> *There is a sense when you start to recycle the plastic oh it's marvellous, but it's also oh great I've got to wash up the plastic as well now, you know! So there is another job to it which takes up some time…*

She had written appreciatively about a number of the films:

> *About Nicks she appreciated his 'thinking about the future for the children'.*
>
> *About Andy's she appreciated 'not replacing/upgrading just because something better had come along'.*
>
> *She related to Helen's 'way of being creative with what she had', though Keith's gardening was less interesting to her because it was 'too time-consuming'.*

In the discussion session Vicky represented well the tensions between economising and being environmental. She alluded a few times to the constraints that money put on the choices she could make. She had bought a diesel car because diesel is the cheapest fuel, and commented that she wouldn't be able to afford a Prius like Pat and Ian; she said she had a *felt objection to water meter idea* because it *feels expensive*, though in Andy's film she related most to conserving rainwater for the garden.

Yet after she reflected on and had discussed the films in the group, she started to work out what actions she could take, despite such constraints:

It made me think because they were doing small things, the people in the films, I could do small things… so it started to make me think I could do little things like turn the lights off and not consciously I now turn my PC off whereas I use to leave it on all day, I don't need to waste the electricity.

In between workshops Vicky recorded some actions too:

Pledge:
Buying more local food; in general buying less stuff; not upgrading if stuff still works
(Added below: Turn off lights!!)

13/03/2011 I've found myself turning lights off a lot today

29/03/2011 Noticed I haven't given this a lot of thought, lately though turned pc off when I went out

Figure 3.18: Vicky's actions

We noted that these interim actions may have been prompted by us and not entirely self-motivated. As had been the case with a few other participants in other audiences - the diary entries were close to when we had sent out our research reminders for Workshop 2. So the change Vicky reported was neither as extensive nor as self-defined as was the case for Ruth.

How might we explain the differences we wondered? Looking back at Ruth's comments from the first workshop we find these two quotes from discussion:

I've been trying to save resources for more than half my life – but does it have an impact on climate change?

There can be a zealousness that can exaggerate the effect these things (pro-environmental behaviours) are having.

Ruth's protest in Workshop 1 was that what we do as individuals in this country cannot make the slightest difference when compared to the vastness of the US, China and India. Her thinking seemed to go something along the lines of: 'If I can tell myself that what I do, and what others do makes little difference to the overall picture, and if the crisis has also been exaggerated by the media, then I can let myself off the hook'. Combined with the distractions of raising a young family, her protection against feeling guilty for not being more pro-active was complete.

But the workshops did change Ruth and opened her back up to the possibility of making choices that would sit better with her environmental past. Whereas the time and economic barriers that Vicky had described in Workshop 1 were still in place in Workshop 2. Further, a recent house-move had increased Ruth's opportunity to act:

> *Hopefully we've had an offer accepted on a house so we're going to be moving so I've been thinking about water use and putting in water butts as we're doing things to the house but I was also thinking how to better manage the recycling, trying to work out how to fit more local shopping into my daily weekly routine and whether there are things we could do at school – I know lots of schools do a local vegetable box scheme where the school gets some of the profit so doing some research about things like that.*

Nick's film had a particular resonance for Ruth. While both she and Vicky are mothers with children of primary school age, and both appreciated Nick's care for the future of young children, it is Ruth who was inspired by his vision to act:

> *I came back to the guy who was working at the school, really inspiring and again, I think the earlier you can get children to embrace all of this the more likely they are to continue with it in later life.*

Ruth was realistic in Workshop 2 about the challenges of changing – she described herself as reverting to old habits. But she had gone beyond this too, embracing not only what she used to do, but also the possibility of collective action. She mused on paper: *"Whether as a group we could take action or influence things that school does e.g. local veggie boxes etc?..."* she admitted at the end:

> I feel as though I've been in limbo really for the last few years.

Vicky also seemed interested in collective action though she seemed more focused on connection, perhaps as a prelude to action:

> *I think if you did meet for more than a couple of times we would start to come up with ideas together.*

Vicky clearly enjoyed both workshops and at the end was keen to point out the positives:

> *I thought the tips were quite good though I didn't do anything with them – they might have gone into the back of my brain and come out later.*

Vicky's views about the environment had moved through the course of the workshops. But what about her environmental behaviour? Perhaps the workshops had cultivated in her a potential to act that might emerge at a later stage. Or perhaps they had had little impact overall. Only time will tell. But Ruth was already moving ahead, the vegetable box scheme, it seems, was but one of her ideas for the future:

> *We could be more systematic about lift sharing say. There are at least four parents who go to swimming at the same time as we do. If we knew each other a bit better we could be a bit more organised about car sharing…*

4 Findings

In Chapter 1 we introduced the rationale for this research that led us to pursue the following two lines of inquiry under which lay five key research questions:

> **Line of inquiry 1:** Might digital storytelling provide a fresh medium to give voice to older people across the 50-100 plus spectrum on pro-environmental behaviours and practices and so enable them to advocate in a new and effective way?
>
> **Line of inquiry 2:** Might digital stories, when used in conjunction with an action research process, provide the means to build the momentum for change within and across diverse communities and audiences?

We introduced also the action research approach that we adopted to pursue these lines of inquiry, explaining that such an approach is embedded, formative and emergent. As a result, findings insofar as they relate to any starting research questions, are accompanied by less easily predicted outcomes. These include learning and changes that remain in the field of research (participant and community outcomes) together with reframed questions and new lines of inquiry.

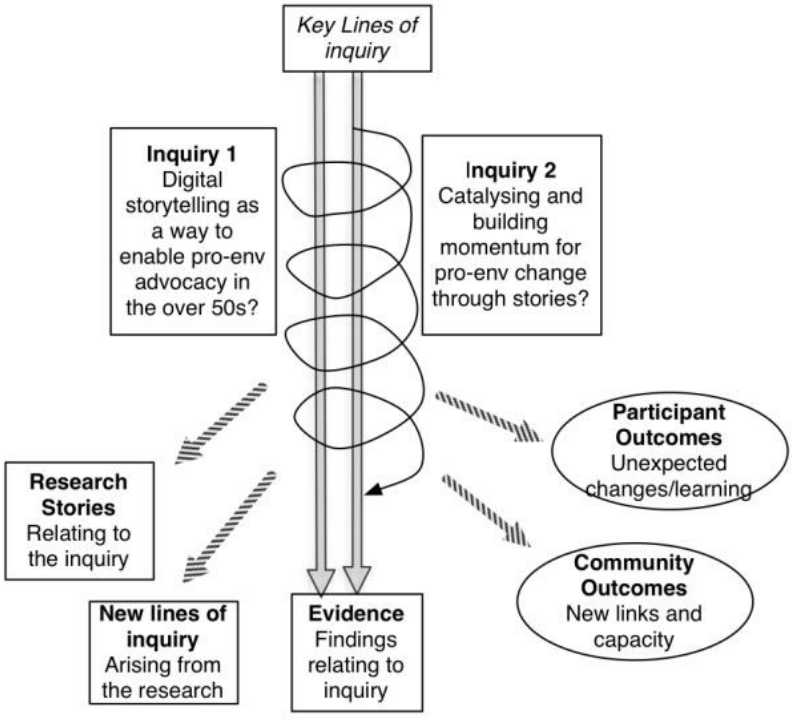

Figure 4.1 Figure 1.2 reproduced here

Chapter 3 presented some specific stories from the field of research, aiming through these rich accounts not only to evoke the experience of the research, and show the process in action but also to point toward some of the participant outcomes and indeed unexpected consequences of the research.

Chapter 2, Section 2.10, has outlined our approach to data analysis and depicted it in Figure 2.13. This has outlined, how, by combining an iterative, reflexive approach with the wealth of data generated at our workshops, we arrived at a range of findings from this research that included:

- **The evidence base:** findings that were closely derived from the data (e.g. from worksheets, storybooklets, questionnaires).
- **Grounded interpretation**: findings resulting from the iterative interpretation of that evidence together with our reflective material.
- **Grounded narration:** indicative research stories that were told and that were in tune with the interpretive findings (our Tales from the field in Chapter 3).
- **Grounded speculation:** unproven, but founded, claims, questions and speculations that arose from the research.

Chapter 3 already will have shown how some of our evaluative instruments played together with our reflective, interpretive approach to support what we call grounded narration. This chapter now presents the remaining base of findings and is divided into three distinct sections.

PART A: Audience summaries

Section 4.1 takes each audience and summarises the key findings emerging as well as some of the key evidence gathered in terms of pro-environmental actions taken and responses to the digital stories. As such this section lies closest to the evidence base and what can be claimed directly from the research. The source of these findings (for example whether it was a booklet, action diary, field notes) is generally cited and some of this base material is included in places throughout this chapter where it is particularly illustrative.

PART B: Reflections across audiences

Section 4.2 then builds on these earlier sections by looking across the audience summaries and drawing out six key areas for discussion. This section is in part evidence based (e.g. the self-efficacy results are summarised), partly interpretive (e.g. some participant behaviours are interpreted with reference to the Defra segmentation model) and partly speculative (e.g. some new ideas and language are suggested to help explain

the way the process was working). Throughout this section some new questions that arise are being teased out.

PART C: Reflections against research questions

Section 4.3 then returns to the five research questions presented in Chapter 1 (outlined below):

1. Digital stories: What impact does watching the digital stories have on the pro-environmental behaviour and advocacy of the participants?
2. Action research: How does taking part in an action research process enhance the impact of the digital stories on participants?
3. Storytellers: What is the impact on the storytellers of taking part in this process?
4. Cross community: How does the impact of the digital stories differ between the storytellers' host community and outside communities?
5. Collective ties & durability: What are likely to be the enduring effects of this intervention on the participating communities?

Section 4.3 revisits these questions and their sub-questions on the basis of the evidence presented thus far: the stories of Chapter 3 and the audience summaries and discussions of this chapter. We present a discursive response to each question – in places challenging the question itself - before drawing out some key insights together with some new questions to consider. This brings us to the point where, in Chapter 5, we can summarise our conclusions in relation to the lines of inquiry as they were originally set out.

Note that all findings in this chapter are presented within the bounds of the limitations as set out in Section 2.11, 'Limitations due to research methodology'. In Chapter 5 we will reflect on the implications of these for further research and in particular on the potential for this pilot approach to scale and achieve pro-environmental change on a much wider scale.

4.1 PART A: Audience Summaries

Figure 4.2 below presents an overview of our audiences and is a condensed version of the tables already presented in Chapters 2 and 3. The numbering (ref no) starts with Audience 0 which refers to the mixed-age, Chew magna based environmental group from which our storytellers were drawn. Subsequent numbering (audiences 1-4) reflects the age group of the audience from oldest to youngest. Finally Audience 5 is our other mixed-age environmental group, this one based in an outside community in Wiltshire (Wilts-greens). The dates show the order in which the workshops took place; this is relevant as analysis was iterative and fed into subsequent workshop designs as key themes started to emerge.

Audience Ref No	Audience name [Acronym]	Defra segment assumed	WS1 WS2 Date	Attendees WS1 WS2	Whose stories they saw
0	Target 80 **[Chew-greens]**	Segment 1 (Positive Greens)	11/11/10 Cancelled	**2** n/a	Pat G, Nick, Andy, Keith, Country market
1	U3A/Bowls 65+ **[Chew-65+]**	Segment 2 (Waste Watchers)	7/01/11 16/03/11	**14** 10	Tim, Pat G, Nick, Pat and Ian, Country Market
2	Parents, Governors and Teachers **[Wilts-PGT]**	n/a	11/01/11 22/03/11	**8** 5	Tim, Pat G, Nick, Keith, Country Market
3	Mothers of young children **[Soms-mothers]**	Segment 5 (Cautious Participants)	09/02/11 05/04/11	**8** 7	Helen, Nick, Andy, Keith, Pat and Ian,
4	Teenagers **[Chew-teens]**	n/a	25/11/10 30/03/11	**30** 25	Helen, Nick, Andy, Keith
5	Climate Friendly **[Wilts-greens]**	Segment 1 (Positive Greens)	30/11/10 28/03/11	**18** 15	Pat G, Nick, Andy, Pat and Ian, Country Market

Figure 4.2 Condensed summary of audiences & stories they saw (repeated from Chapters 2 and 3)

Digital story and research story key

Each audience overview summarises that audience's response to the digital story films we showed them. For an overview of which films were shown to which audience please refer to Figure 4.2 above. There and in our summaries below we will refer to the digital stories via the names of the storyteller. To help the reader more easily link the storyteller to the subject matter of their film we repeat Figure 1.5 (as a quick reference guide) from Chapter 1.

Storyteller	Story Title	Story theme
Helen	Looking forward	Make do and mend
Tim	Good job	Insulation
Pat G	Lucky dip	Cooking and shopping
Nick	From the sun	Solar panels
Andy	Why change it?	Not wasting
Pat and Ian	Trying to change	Small changes
Keith	Full of flavour	Allotment
Country market	Chew valley country market	Country market

Figure 4.3 Quick reference guide to digital stories (repeated from Chapter 1)

We will also draw, in places, on the stories from 'Tales from the field' in Chapter 3 to illuminate some of our findings. Where we do this, we will reference by story number, and the person featured in that story. The following table in Figure 4.4 is presented to allow the reader to cross-reference to the stories in Chapter 3.

Story cross-reference number	Field story characters	Field story title	Group / Audience
S1	Helen	Storytellers stories	Storytellers
S2	Nick	Storytellers stories	Storytellers
S3	Keith	Storytellers stories	Storytellers
A1	Zoe, Grace and Anna	Growing green shoots of advocacy	Chew-teens
A2	Sue	Integrating the public and the private	Wilts-PGT
A3	Isabella	Making new discoveries	Soms-mothers
A4	Jean	Why us? Resisting the 'call to action'	Chew-65+
A5	Bill and Margaret	Green technologies and the wastewatchers	Chew-65+
A6	Ruth and Vicky	Different kinds of change	Soms-mothers

Figure 4.4 Cross-referencing Table to 'Tales from the field' in Chapter 3

Audience 0: Chew-greens

Chew Magna based environmental group (Target80) and wider community

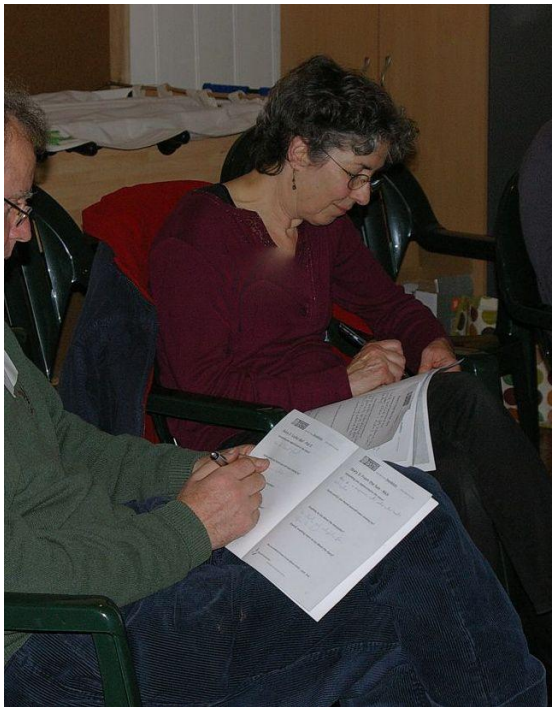

Figure 4.5 Filling out storybooklets at Workshop1 of Chew-greens

Overview of Audience: We intended that this audience would be comprised mainly of members of the wider Target80 environmental group from which most of our storytellers were drawn. As described in Chapter 2, recruitment of participants to the evening proved problematic and ultimately only two people attended. A second workshop for this group was therefore not convened and participants were invited to attend the other audience groups (though they did not). This audience is nevertheless included here, for completeness, and because some important themes did emerge despite (or indeed highlighted by) the very small attendance.

Group profile: The group (1 woman, 1 man) ranged in age from 50-65. Both reported a degree of engagement with and awareness of environmental issues though for neither participant these were of central concern[11].

Behaviours already active[12]: Water conservation (butts and a meter), recycling and home composting, some consideration of transport choices.

[11] Group profiles throughout are based on the interactive poster session at the start of workshop 1 where participants responded to questions that included some questions from the Defra segmentation questionnaire. Thus profiling here gives an indication of segmentation but was not an exact use of the Defra segmentation tool.

Responses to films[13]: Both participants registered a positive, appreciative response. They pointed out that overall the stories and behaviours featured were 'familiar territory' to them. Nevertheless each reported learning something new from the films about what was going on in their community (e.g. the school and the country market). Response to the storytellers themselves was positive. Particular warmth was expressed by one participant for the storytellers they knew. Both participants connected to Andy, what he had to say and, for one participant, the way he said it reminded them of family members.

Outcomes reported in Workshop 2: Not applicable for this group.

Key reflections: Much of what was learnt in this workshop related to the process – in particular the difficulties there can be recruiting a community group to attend a workshop like this. More generally this workshop was the first indication that Chew Magna, and specifically the Target80 environmental group might be saturated and not able to provide us with enough participants for the research. Clearly the small population base in Chew Magna was a factor. But, as we outlined in Chapter 2, we felt the waning energy and capacity of the Target80 group – who had been through several initiatives in the past years and who had just lost their key organising coordinator. The learning we drew was these questions of population and local convening capacity might have been considered more explicitly at the planning phase.

Though our learning was mainly process related, these first two participants articulated many themes that would repeat over the course of the workshops. These included the 'familiar territory' response – the sense expressed initially by participants that these films were not for them but for other audiences, for other people less versed in pro-environmental behaviour. This gave way through discussion to a sense of reinforcement and support as participants reflected on what they themselves did or might do further. This workshop also raised the key theme of the 'family as a site of negotiation' where one participant identified the differences in view and approach, regarding environmental behaviour, within her family and how this might impede action. We went on to work actively with this theme throughout the workshops asking participants to consider 'advocacy' in the home (and elsewhere) as a form of action and area of inquiry.

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[12] This is not an exhaustive list but is based on behaviours participants cared to mention under broad categories in a short poster exercise at the start of Workshop 1.

[13] Throughout all audience summaries the basis for this section 'response to films' is drawn from written up storybooklet summaries as well as transcripts of the group discussions that followed.

Key findings

- An environmental group's capacity to engage and act relies on several factors (e.g. history of initiatives, key players, local population) that require close consideration *at the planning stage* when engaging in a process like this.
- Within families different attitudes and approaches to pro-environmental behaviour exist that influence ultimate actions. There is potential in this process to encourage inquiry in this area.
- Knowing the storytellers can increase receptivity to their stories where they are already known to (and liked) by participants.

Audience 1: Chew-65+

Chew Magna based over 65s

Figure 4.6 Chew-65+ participants filling out posters at Workshop1

Overview of Audience: This was a group of 10-14 participants most of whom were made up of members from, or connected in some way to those at the local bowls club in Chew Valley and the local branch of the University of the Third Age (U3A). The bowls club contact supported the research in part to help draw new members to the club and both workshops were held at the club.

Group profile: The core group (3 men, 7 women) who attended both workshops were all older than 65 with one over 80. Two younger participants (and one older) dropped out after Workshop 1. At Workshop 1 the group were divided on the environment: just over half agreed there was an environmental crisis and that there was an urgent need to act and felt that they themselves could do a lot more. The remainder were quite happy with what they already were doing for the environment and expressed varying degrees of calmness, doubt or disbelief about there being any pressing environmental issues to be addressed.

Behaviours already active: Shopping carefully and locally, waste minimisation, recycling, composting, growing own fruit and vegetables, water

conservation. Two participants already had solar energy installed (1 thermal, 1 photovoltaic), reducing car running costs.

Responses to films: The films as a set were well received by the group. Again they highlighted a familiar territory to them. Themes in the stories of food, transport and local produce resonated most with participants – but one they felt resonated and was valid. For example participants connected very much with Pat's cooking and local shopping story and to Pat herself, appreciating her personality and positive attitude. The country market film was also well received and a source of community pride for some participants. There was universal appreciation for Nick's story and the way he had engaged with his school, the children there and the wider community. There was interest too in solar energy. Loft insulation was less of an interesting theme. Participants appreciated Tim's story and his clear way of telling it and most participants had either considered or had had loft insulation already installed. However responses were muted, one noting it was important but not exciting and two participants questioned Tim's information in the film. Similarly participants resonated largely with Pat and Ian's film but there were fewer enthusiastic responses. For each story, the storyteller was known to a handful of 2-4 respondents and in the case of Pat this played positively into the responses. Other responses did not appear to be effected unduly either way.

Outcomes reported in Workshop 2[14]: Outcomes from those participating in the workshop were reported to be low – relative to other audiences.

	Area of behaviour/influence	Examples
Tangible behaviour changes reported	Transport Purchasing Energy Efficiency	Driving less – cycle more (3) Buying more from farm shop (1) Exploring loft insulation (1)
Influencing/advocating behaviours reported	Family and community Work colleagues	Informing friend about loft insulation; Telling friends and family about the research Tried to encourage employer not to be wasteful; telling several local farmers about Nick's story and about solar panels at a local farm
Other consequences reported	Strengthening social ties Satisfying gnawing concerns	One participant went on to join the Bowls club One participant took the action to find out about a longstanding health concern she had about drinking water from the hot tap. In between workshops she explored this with others and resolved the issue.

Figure 4.7 Examples of behavioural outcomes Chew-65+.

[14] All 'behavioural outcome tables' are drawn directly from the 'thinking/acting/talking' worksheet exercise at the start of workshop 2.

Key reflections: For this group the digital stories voiced familiar issues and were wholeheartedly accepted and validated. The inquiry space that opened alongside was not so much to do with what behaviour changes might be inspired but more to do with the concerns, questions and dilemmas of this generation. Concerns over waste, particularly food waste and packaging, and consumerism in general were expressed repeatedly. Yet, in keeping with the basis for this research, the question of how to advocate such views effectively was perceived to be a problem. When exploring possible actions some group members expressed a lack of confidence in their ability to communicate to younger generations – especially their own children. During the inquiry process participants got the opportunity to practice their advocacy and particularly enjoyed sharing their histories and stories. Overall the work with this group felt to be centred more on experimenting with and developing forms of advocacy than directly on behaviour change. As the table above shows the research did little to noticeably stimulate behaviour change. Though a handful of new environmental activities were reported in workshop 2 participants were generally reluctant to link these to the research citing instead external factors such as a house move or fuel price increases. For this group not wasting is deeply ingrained and there is some suspicion of the environmental agenda. So framing 'change' within that agenda may have been problematic.

The inquiry surfaced too a resistance to change in this group – a sense they had 'done their bit', were too old to change, or were doing enough already. This age group value expert opinion. They sometimes sought more information in session and some found the participative inquiry challenging, though the social aspect was clearly valued and reflected in high enthusiasm levels particularly at the end of Workshop 1. The process inadvertently allows other needs and questions to be met (e.g. need for social interaction or need for expert information on questions of concern).

Key findings

- The digital stories of the 50 plus's were validated as authentic and connected well with other members of the same community of a similar and older age as representative of familiar and important issues.
- There is a resistance to change within this age group. Work with this age group seemed more effective when helping them explore and develop their pro-environmental advocacy and to voice their questions and concerns regarding their current pro-environmental choices.

- This groups' pro-environmental behaviour changes were impacted more by external factors – notably energy price increases – than by the workshops themselves.

Audience 2: Wilts-PGT

Parents, Governors and teachers based in a Wiltshire school.

Figure 4.8 .Wilts-PGT participants envisaging an 'ideal' way of propagating pro-environmental stories

Overview of Audience: This was a group of 8 participants who were linked via relationships with the primary school and with each other. Several of the group had worked on a local community conservation project before and were now coming together with the school to create a community garden project. This was the reason for the school's head teacher and our main convening contact to agree to participate in the research. The group that resulted was strongly community and educationally focused. These were a group with high levels of family, work and community commitments. Also the market town in Wiltshire with a population of over 40,000 was a very different community to that of Chew Magna (where the storytellers were based) in terms of size and demographics. Some areas of the town are among the most socially deprived in Wiltshire.

Group profile: The group (7 women, 1 man) ranged in age from 35-80 with the majority in the 35-65 age-range. Two older participants (65 plus) dropped out between Workshop1 and 2. The group self-identified as environmentally minded. However they all indicated a wish to do more for the environment.

Behaviours already active: Recycling, growing their own fruit and vegetables, water conservation (especially in the garden).

Responses to films: Keith and Nick's film stimulated the greatest response. Nick's film, because it depicted a school environment, was particularly resonant. Keith's persona and his theme of gardening also connected well with participants many of who shared this interest. A couple of group members reacted negatively to Tim's film. One participant said she didn't like how he seemed to be to telling his daughter what to do in her house. But response overall to the suite of films was very appreciative. The group noted the difference between Chew Magna and their community. Some saying the world evoked by the films seemed an ideal for them and made them feel nostalgic. Others saying the Chew Magna of the stories seemed unreal, '*too good to be true'* and lacking in grit. Several participants also highlighted differences between their lives and those of the storytellers. They noted just how much less time they had in their lives for activities such as Pat's bulk cooking and local shopping. None of these differences prevented the group connecting with and responding to the themes of the films. Indeed the strong points of connection via Keith and Nick's film together with the various points of difference made for a very fruitful discussion.

Outcomes reported in Workshop 2: Outcomes from participating in the workshop were reported to be high. All but one of the group reported several tangible behaviour changes since the first workshop:

	Area of behaviour/influence	**Examples**
Tangible behaviour changes reported	Transport	Cycling not driving (2) Researching emissions (1)
	Purchasing	Buying only organic/certified meat (1) In-season fruit (1)
	Gardening	Increasing yield of current fruit and veg grown
	Renewable energy	Exploring solar energy (2)
	Resource use	Recycling/reusing paper more; General energy conservation; Installed energy saving light bulbs in workplace (school)
Influencing/ advocating behaviours reported	School	Promoting environmental behaviours there and encouraging others' projects: 'nagging' staff members.
	Family and community	Recycling for family members and their neighbours; Lobbying family on food purchasing habits.
Other consequences reported	Adopting storytelling as an approach	Participant tried approach and encouraged others in school setting to do this. Another participant considered use of Keith's film to support her community work.
	Doing ones own research into issues	Participant investigated 'carbon emissions' figures and thought more deeply on linking local to global issues
	Reconsidering life choices	Participant reported reconsidering her life choices in relation to the environment and discussing these with her partner.

Figure 4.9 Examples of behavioural outcomes Wilts-PGT

Key reflections: This group appreciated and identified with the activities featured in the digital stories. However, in other ways they did not identify at all in terms of the time they had and the rural middle-class setting of Chew Magna. This group highlighted some inter-generational friction between the adjacent generations; this we found was reciprocally present in the Chew-65+ group. We found that not identifying fully (we call it 'disidentifying') with the stories or the storytellers did not inhibit those stories stimulating action however. This was a very active group, in terms of uptake of new behaviours and experimentation with new approaches overall. The process of the research also stimulated for participants deeper, potentially significant thought in terms of their lives personally. Further, for one or two 'big thinkers' in the group, it stimulated them to explore how their local actions might link to their already well-established views on the 'macro-political' canvas. The work with this group highlighted the potential our approach has to support those in public roles of influence to explore how to integrate their personal environmental leaning with their influential public roles more readily. It also highlighted a type of group that responds well to this kind of work – one that is 'action ready' (not necessarily environmentally focused), that has existent social ties to help build action and that is ready to explore the issues from a personal as well as (for one or two) a broader more political and technical point of view.

Key findings:

- Generations adjacent to the storytellers and those from other communities may not fully identify with their lives or situations, but this does not inhibit action
- The action research approach has the potential to support those in public roles to increase their influence and to integrate personal environmental leanings in their public lives
- A group with existing social ties, an activist orientation and environmental leanings (though not necessarily a focus) would seem to respond well to a process like this.

Audience 3: Soms-mothers

Mothers of young children based in a Somerset village

Figure 4.1 Soms-mothers in reflective mode at Workshop 1

Overview of Audience: This was a group of 8 women from a Somerset village where two of the research team live. All were mothers of school or pre-school age children. The women knew each other through the local community. Most were actively involved in the community either through the local church, school governors or toddler group. Convening this age group had been most difficult. All who attended had some interest in the environment though some admitted they also made time to attend out of loyalty to the research team two of whom they knew as friends and neighbours.

Group profile: The 8 women all fell in the 35-50 age bracket and were just slightly younger than the Wilts-PGT group. The group had varied views on the environmental crisis. For one or two it was very urgent. For most it was an important but a background issue that was being addressed. The other two participants felt it was an exaggerated or non-urgent issue. All participants indicated a readiness to act signalling they could do a bit or a lot more for the environment. Five women attended the second workshop. Two participants were unable to attend due to other commitments but attended a separate follow-up research session with one of the research team.

Behaviours already active: The most common behaviour was kerbside recycling. Also mentioned were: growing fruit/veg on their allotment, buying locally sourced food, using charity shops for clothes and toys, and composting. One participant had solar thermal and photovoltaic panels on her house.

Responses to films: The group connected well with the stories themselves and with the idea of storytelling and the digital story form overall. Their responses echoed Wilts-PGT in appreciating the genuineness of the storytellers and their humility. Andy as a storyteller connected very well – they found him 'credible, genuine, down-to-earth'. And the content of his story, with its commentary on consumerism and the dilemmas of flying, also fed directly into subsequent discussion. Keith and Nick were also very positively received as storytellers for their gentle persuasiveness. Nick's story however provoked a strong reaction in one participant who explained in discussion how frustrated it made her feel, as a governor, that her local school had not opted for solar energy in a recent building project. Helen's film divided opinion. Some participants sewed at home and related to it, but for two or three the idea of hand-knits and sewing belonged to the older generation and their booklets revealed strong reactions and negative associations (not with Helen but with the idea of make-do-and-mend). This together with Andy's film seemed to tap into this group's interest in resource conservation, which fuelled a lively conversation and exchange of ideas around charity shopping and 'freecycling', your unwanted goods. By the end of the first workshop a number of participants had pledged to actively investigate some of these ideas. Reactions to Pat and Ian's film were appreciative but participants overall found it less persuasive citing different reasons in their booklets (too general, using two voices). In keeping with this, it featured less in discussion.

Outcomes reported in Workshop 2: Several new pro-environmental actions were reported alongside a series of deeper influencing and engagement actions within the family and community. Note the table below summarises responses from just 7 participants so the response in action was high. Participants commented how they had been prompted to re-open issues (e.g. solar energy). Some actions reported were, participants suggested, things they might have done anyway (e.g. a drive to keep lights off at home). However many actions that participants took were directly attributed to having attended the first research workshop.

	Area of behaviour/influence	Examples
Tangible behaviour changes reported	Purchasing/Food	Shopping locally (3), Buying local produce (1); Using less bags/packaging (2); More from scratch cooking (1), Eating less meat (1) Noticed **increase** in packaging and offset by growing own fruit (1)
	Transport	Walking more (1); Carbon-offsetting (1)
	Gardening	Planted 2 fruit bushes to offset packaging (1); Planted fruit trees (1)
	Waste/Recycling	Clear-out and donating to charity shop (2); Started using food bin (1)
	Water conservation	Water re-use in gardening; Spurred on to buy new waterbutt (1); Monitoring and reducing water use (1) Putting a bucket in the shower like Andy (1)
	Energy use	Switching lights/appliances off more (2); Turned heating off earlier (1)
Influencing/ advocating behaviours reported	Political/Issues focus	Two participants' became more politically active – one reconnected with her views on nuclear power and was stimulated to discuss issue more; another stimulated to support offshore wind farm scheme.
	Family and community	Several conversations with partners, children and wider families about environmental behaviour. Two participants started to re-open possibility of getting solar energy with families; One participant took on recycling for family members; Another participant asked lodger to reduce number of baths taken.
	School governing board	One participant, a governor at the local school, had, at a recent meeting, cited her attendance at the workshops to lend weight to her argument that the school should explore installing solar panels. Though she noted the decision is largely financially driven and therefore more favourable now with the feed-in tariff, the school agreed to explore solar energy.
Other consequences reported	Becoming more conscientious	About energy saving, recycling in general.
	Engaging with children on environmental issues	Trying to model good environmental behaviour (conserving energy/water/resources) to daughter and explain why.
	Community based collaboration	One mother had jumpers knitted by an older member of the community

Figure 4.11 Examples of Behavioural Outcomes Soms-mothers

Key reflections: In many ways this was the group who demonstrated best what the research had been hoping to achieve. As mothers of young children, these women were primarily concerned with juggling everything to do the best for their children and more broadly their community. Playing into this was the environmental issue – for some more than others - but all felt their ability to act was constrained by having no time *to even think* or address the matter beyond the obvious actions like recycling. What the workshops did was to open up space for them to reflect together on what further actions they might take, and discuss together what was important to them. The digital stories supported that discussion directly (see response to films above) helping to open up very

useful discussions on the challenges of running a household, rearing children and participating in the community.

Key discussion areas centred on the choices and dilemmas associated with the purchasing, use and disposal of food, clothes and other goods. The depth of this discussion was then reflected in the wide range of actions reported at the start of Workshop 2. Furthermore, at least three participants felt able to adopt a more pro-active, responsible role for environmental issues within their families (as illustrated in Isabella's Story A3) though one woman had felt disempowered by this when her in-laws dismissed solar energy when she raised it with them.

Though a small group, there was diversity in terms of socio-economic status and views on the environment and this diversity fuelled, we think, what was achieved as a group. Peer-to-peer learning is important for a group like this - which is strongly networked and shares a common interest in doing the best for their children. There could have been more space for this in session as the group highlighted how, once re-stimulated to consider environmental options, they still found they lacked information and practical tips to help them make decisions. By Workshop 2, several participants noted (on the baseline posters) that they had moved in their views on the environment. Two participants who had been sceptical acknowledged the environmental issue more. Several participants adjusted their willingness to talk about and *do* more for the environment. This in combination with the actions reported suggested that the research had opened up new possibilities of action for them. A final reflection was that this group was creative, humble and practical in terms of trying to adopt pro-environmental behaviour and fit it into their lives. We concluded they would make a very good set of storytellers themselves.

Key findings

- For groups such as young mothers who are practically and community focused the digital stories and action research process can help open up significant pathways to action. However, this group is concerned, they have little time, as they see it, '*to even think'* about environmental issues.
- Participants in this group showed in their actions, a readiness to adopt a stance of increased pro-environmental advocacy and responsibility within their family and community settings as a result of participating in the research.

- The diversity in this group in terms of environmental views and socio-economic status served the process well. It supported different ideas to be surfaced and peer-to-peer learning to occur. Crucial to this was the existing community cohesion in the group, which meant that this diversity was treated constructively, and differences of view were respected as they considered a new set of issues together.
- A strong reaction to a film, whether negative or positive (frustration or inspiration) can, through the action research process, open a route to inquiry and ultimately action.

Audience 4: Chew-teens

Year 8 pupils from a local secondary school in Chew Valley

Figure 4.12 Chew-teens get stuck into the poster session in Workshop 1

Overview of Audience: This was a group of 25-30 pupils from a local secondary school in Chew Valley. Our workshops were shortened to fit in the one and a half hour science lesson.

Group profile: This was a Year 8 high ability science class. Pupils were between 12 and 13. Thirty pupils attended the first workshop and twenty-five the second. There was an equal balance between boys and girls. It was our only captive audience. Most pupils said they rarely talked about the environment and in session perceptions of environmental issues and actions seemed vague or confused at times. Nevertheless most of the group expressed a desire to do a little or a lot more for the environment.

Behaviours already active: Energy saving (e.g. switching off lights/computer), growing vegetables, recycling, being careful with water, walking.

Responses to films: The response by the teenagers to our older storytellers was appreciative and respectful. They responded particularly warmly to Keith, Helen and Nick and the way their stories featured doing things for others and the younger generation. They related to the stories via older family members – many remarked how a storyteller reminded them of a grandparent or parent.

For example Helen's interest in knitting and craft reminded a handful of teenage girls fondly of their grandmother's activities, with whom many of them clearly shared a close relationship. They also resonated with the fact that Helen was knitting teddies for the mercy ships and that this was a charity which supported children their own age. However their comments suggested they could not see the relevance of the storytellers' actions to themselves – these were things they could imagine their parents and grandparents doing but not them. This was reinforced by the fact that many of the actions they pledged after the first workshop had not been depicted in the films at all, but were more directly related to their age group, such as switching off their computer and taking a shower instead of a bath. So the teenagers did not have a negative response to the storytellers themselves, but the actions they depicted were associated with an older generation, not theirs. This was highlighted by the actions reported by the teenagers in Workshop 2 which related less to the films than was the case with other audiences. The next two sections develop this point.

Outcomes reported in Workshop 2: The group reported several actions taken between the workshops. This group made the most use of the action diaries. Most diaries were returned to us and, of these, six pupils had filled in a number of interim actions.

	Area of behaviour/influence	Examples
Tangible behaviour changes reported	Reducing energy use at home	Switching off lights (11), Turned off other appliances (3), Reduced tumble dryer use (1)
	Water use	Tap off doing teeth (4), Got/used water butt (3), Saved water (1)
	Transport	Lift sharing (4), Walking more (2)
	Waste/Recycling.	Recycling: generally (5); electrical items (2); Reused: old boxes for storage (1)
	Gardening	Planting trees/shrubs (4), Growing fruit/veg (6),
	Bio-diversity	Created a wildlife zone in my garden (1)
Influencing/advocating behaviours reported	Family	23 of the pupils discussed the research with parents or siblings. 2 reported describing Keith, Helen's and Nick's films. A handful reported activities involving their parents or directly advocating for behaviour changes to their parents.
Other consequences reported	Using AR diary as personal diary	One pupil recorded in the AR diary personal events (e.g. birth of a new family member) and linked these to environmental issues.

Figure 4.13 Examples of behavioural outcomes Chew-teens

Key reflections: This group recorded plenty of action though mostly to do with turning off lights, conserving water, growing produce and sharing lifts. It was not clear to what degree these actions were influenced by messages they already receive at school or from parents and to what extent the research and

the digital stories had stimulated this increase in pro-environmental activity. There was strong evidence of significant peer influences at play both in discussion and on our recorded outputs. For example we found clusters of identical actions recorded by pupils who sat adjacent to each other. Nevertheless the action research process works specifically to allow individual voices to be heard and within the swell of peer-primed response came stories of at least three pupils who reported thoughtful actions or effective steps of advocacy that had been taken as a result of participating in the research (see Zoe, Grace and Anna's Story A1). This story, and our work with this group overall, highlights that, due to their marginal influence on family budgets, this generation have the least ability to act in terms of pro-environmental behaviour. This disempowered position is exacerbated further by a more general feeling that some of this generation have that they are not being listened to – see direct quote in Story A1. However our research suggests this can be overcome when young people are encouraged to realise an effective advocacy in a family environment. Achieving such advocacy however requires sufficient grasp of the issues to be able to translate them into meaningful conversations in a home setting and at the outset, we found little to suggest that our young participants were in a position to do this. The research supported the pupils to consider the environment in a practical way as well as pushing into some of the difficult questions this raises. One boy asked when placing his dot on the earth poster: 'is the world going to blow up?' It also tacitly offered these younger people the idea of role models drawn from their own families and communities, something we found was lacking for this generation. When asked to suggest new stories and new storytellers the majority of pupils suggested celebrities. Thus, though the storytellers and stories were distant from these younger participants, they played an important role in stimulating the discussion, engaging with the issues and bridging the difficult inter-generational divide.

Key findings

- Our teenagers related to the stories appreciatively and largely through the lens of their own family members. They particularly picked up on aspects of stories where storytellers were reaching out to younger people.
- Our teenagers were hampered on all sides from adopting pro-environmental behaviours: they have a hazy or simplified grasp of environmental issues and a marginal influence at home. There was

some evidence the research helped some participants to overcome some of these barriers by becoming advocates in their family settings.

- Our teenagers lack community and family role models. Stories from older advocates set within their own community, however distant, can help bridge this and *begin* to offer alternatives to celebrity culture.

Audience 5: Wilts-greens

Climate Friendly – A Wiltshire-based environmental group.

Figure 4.14 Preparing to view the stories with Wilts-greens at Workshop 1

Overview of Audience: This was a group of 15-18 participants who were mostly members of an active environmental group based in a small Wiltshire town. The group's coordinator was very interested by the research and very supportive. Furthermore, the group had recently won funding to engage local householders with energy saving measures. Several householders involved in this programme expressed interest in the research, though ultimately it was only those running the programme that attended. The group that resulted was strongly environmentally focused with just one or two outliers who had been invited along as friends and neighbours.

Group profile: The initial group of 18 (13 women, 5 men) ranged in age from 20-80 with the majority (11) lying in the 50-65 age-range. The group self-identified as very environmentally minded with all but two stating there was an urgent need to act. Most indicated a wish to do more for the environment although, as they were already very active, many were unclear what more they could do.

Behaviours already active: Very active in all areas of energy, water, food, waste and transport with several making conscious environmental choices such as minimising flying, car use, energy and water use in the home in obvious (e.g. thermostat reduction, close energy monitoring) and less obvious ways (e.g. not running a fridge, using flasks to avoid re-boiling water). At least one participant had solar thermal heating installed.

Responses to films: This audience gave a nuanced and diverse response to the stories. Overall they were appreciative of the form - of the 'ordinariness' of the stories and of the storytellers' sincerity which they felt worked as a form of gentle advocacy. The group were also helpfully critical in terms of what worked or didn't work in terms of the content. Though appreciating the range of activities depicted several commented on how 'middle class' the story set seemed. The group were universally positive about Nick's story. Other stories evoked discussion especially where dilemmas or paradoxes were depicted. For example, several participants picked up on the country market film where marmalade was being flown out to Singapore. Andy's film in particular caused a lot of discussion at the tables. Though many very much related to Andy, a few questioned his choice of cruising instead of flying or the difference saving water from the shower might make. Similarly with Pat and Ian's story, their approach was widely appreciated but some participants challenged the tone – with one or two feeling they were not being positive enough. The country market film drew direct comparisons with this community's market where differences and similarities were discussed.

Outcomes reported in Workshop 2: A high level of pro-environmental action was reported in workshop 2. The workshop's role in stimulating this was difficult to assess with such an active group. However some causal links were identified and participants clearly felt boosted by being encouraged to formulate action plans and to account for the things they were doing.

	Area of behaviour/influence	Examples
Tangible behaviour changes reported	Transport	Car sharing (1) Car use reduction (2) Increase public transport (2)
	Purchasing	Buying only organic/certified meat (1) In-season fruit (1)
	Gardening	Doing more (1) Engaging in community gardening (1)
	Food/Purchasing	Finding healthy recipes (1), Local shopping (2), Baking own bread (1)
	Renewable energy	Installed photovoltaic panels (2), Solar survey/research (2), Installed solar ready boiler (1)
	Energy use	Loft insulation – installed/researched (2), Turning heating down (1)
		Reduced energy consumption by 8% (1),
		Turning off computer monitor (1),
	Water use	Saved water in shower with bucket (1), Closer monitoring of use (1)
	Waste/recycling	Increase in re-use – e.g. freecycled/Charity shop clearance (4)
	Community/Work	Took on pro-bono work, Engaging in local projects (4)
Influencing/ advocating behaviours reported	Wider community	Energy reduction measures implemented in local Quaker meeting; Publicised earth hour;
Other consequences reported	Adopting storytelling as an approach	Got householders to tell stories about their involvement in latest energy saving initiative.
	Considering choices and dilemmas more deeply	Several participants reported thinking more deeply about their environmental choices and where to focus efforts. Areas such as flying, the political context, local shopping, and car use were some areas mentioned.

Figure 4.15 Examples of behavioural outcomes Wilts-Greens

Key reflections: This audience engaged very positively with the research though feeling at first not to be the 'right' audience as they were already doing so much. However as the discussion opened up in Workshop 1, participants noted how very much they appreciated having the time to reflect together on the 'big picture' and to explore their environmental choices together. This was something as a group they did not often do. The research boosted the group in a number of ways. Firstly, it affirmed them as a group in terms of what they were already doing – helping them to 'feel less alone'[15]. They saw themselves individually and as a community in the films from Chew Magna and, through discussion, could highlight also how they were different. Secondly, it offered them the space to reflect more deeply on their current choices and to explore possible new actions. As the table above shows the group were very active between the two workshops. Though clearly some of these actions might have taken place anyway, several participants connected the actions they took to the research. Of the six action diaries that were returned, all had either fulfilled their pledge or added new actions that they had taken. Thirdly, the research

[15] From a comment of a participant in the closing round of Workshop 1.

process opened space for the group to be creative as well as to challenge existing norms. For example, one participant started a discussion on the dilemma of whether or not to fly – a subject that he had previously felt to be a 'no go' area due to the guilt associated with admitting to flying. When invited to explore how, as a group, they might influence more widely - as well as spread awareness through stories - the group brought out several creative examples and ideas. As some participants remarked towards the end of the process, though they met often, they rarely had time to sit back and think in a different way about the environment and to do that thinking together. This was reflected in efficacy scores for this group who self-reported the highest of all audiences in Workshop 1 and recorded even higher (though statistically not significant) scores at the end of Workshop 2.

Key findings

- The environmental stories of 50 plus storytellers from an outside community can connect well with and be credible to an environmental group from a similar demographic (though they will notice and perhaps critique the lack of diversity in terms of class, race etc. of that set of stories).
- An active environmental group can be boosted by the stories and inquiry process on multiple levels: on the level of action in terms of finding new creative ways to act; and on the level of thinking more deeply and creatively individually and as a group about their environmental choices and actions.
- Whilst inspiration is important, paradox, disagreement and dilemmas featured in the films (explicitly or implicitly) play an important role in fuelling productive inquiry in the action research process.

4.2 PART B: Reflections across audiences

The six audiences we worked with spanned a broad age spectrum from 12 to 83. A number of interesting insights arose from working across generations in this way. Later sections will consider our findings in relation to the original research questions. In this section we highlight the following six key areas that arose in particular from looking across our audience groups and discuss each in turn:

Sample size, orientation and reach

Links to self-efficacy results

Inter-generational silos

Links to Defra segmentation

Opening up inquiry spaces?

One size fits all?

4.2.1 Sample size, orientation and reach

Summary of key points:

- The research sample was limited in number and biased in that a majority of participants were already motivated and willing to engage with pro-environmental behaviours
- The research showed that the pro-environmental engagement of such participants could be boosted in a variety of ways. One of these was, in a few cases, trying out storytelling approaches themselves.
- We came to interpret pro-environmental advocacy and action of equal significance in terms of impact.

Discussion: The first cross-audience point is to do with the nature of our sample. Though we engaged with over 80 participants from across age groups, there was a bias in our sample towards those with some willingness to engage with environmental issues. Apart from Chew-teens, audience groups were self-selecting. This meant that those who attended had some interest in the environment though it was only the Wilts-greens group who were primarily focused on that issue. Other groups' concerns were framed differently though compatible with the picture the research presented: for example the Chew-65+

groups' concern about consumerism/waste and Wilts-PGT groups' emphasis on community projects fitted well with behaviours we discussed as desirable in relation to 'big issues' like climate change, biodiversity loss etc. These groups with aligned interests related well to the activities in the film and a common response was to wonder at first if the research was relevant for them (as they were already on side). Yet over the two workshops we found the research served to boost their engagement with environmental issues in a number of ways. It helped them, individually and collectively, to reflect more deeply on their environmental actions and to seek creative new ways not only to act but also to advocate for the environment. In Wilts-PGT and Wilts-greens there was uptake of using stories as a new way to advocate, indicating the process has within it a possibility to self-replicate in terms of stimulating new environmental stories to be told in new settings. Across our audiences we also saw that the potential of the process to build environmental advocacy was as important as the potential to stimulate tangible action. An exploration of how this process might further develop community situated pro-environmental advocates could, we suggest, be a fruitful area of further research following on from what we have piloted here.

The question remains however how would this research work with less aligned groups or those with little or no interest in the environment? The best pointers come from our work with Soms-mothers and Chew-teens. Soms-mothers highlighted that their ability to act (irrespective of the varying degrees of environmental concern they had) was severely constrained by having, as they put it, 'no time to think' or to address the matter beyond the obvious actions like recycling. With this audience in particular, we saw how the action research process gave them that time. In that context the digital stories could be a very useful source of ideas upon which participants could directly act. Chew-teens may have benefitted similarly had the stories been more oriented towards their generation. Thus whilst we saw the stories fulfil a particular role with our green-minded participants, the suggestion is they could fulfil other useful roles with less environmentally oriented audiences. Furthermore, our work with the Chew-65+ group in particular shows that working even more explicitly with the agenda of concern of an audience and linking it to environmental issues rather than vice versa might equally help expand the reach of the research.

Key questions/speculations arising:

- How might the digital stories work with audiences who were less engaged or less aligned with pro-environmental agendas? Might they fulfil different roles with different audiences and hence might the approach be applicable more broadly across segments?
- Might framing the workshops according to the interests of the audience group rather than to the pro-environmental agenda have led to greater reach in the research?
- Might focusing more on skilling up and stimulating further storytelling in our audiences have resulted in a greater impact overall? What would it have taken to do this?

4.2.2 Links to self-efficacy results

Summary of key points:

- Overall participants' collective and individual confidence to adopt pro-environmental behaviour did not appear to be significantly impacted by taking part in the research.
- Four participants however recorded a significant increase in pro-environmental self-efficacy due to taking part.
- The qualitative self-efficacy instrument resulted in findings that were in tune with the interpretive and narrative research findings.

Discussion: The second cross-audience point reflects the different levels of confidence our audiences collectively and individually felt with regard to adopting new more pro-environmental behaviours.

The **collective self-efficacy** results from across our audience groups is shown on the chart below.

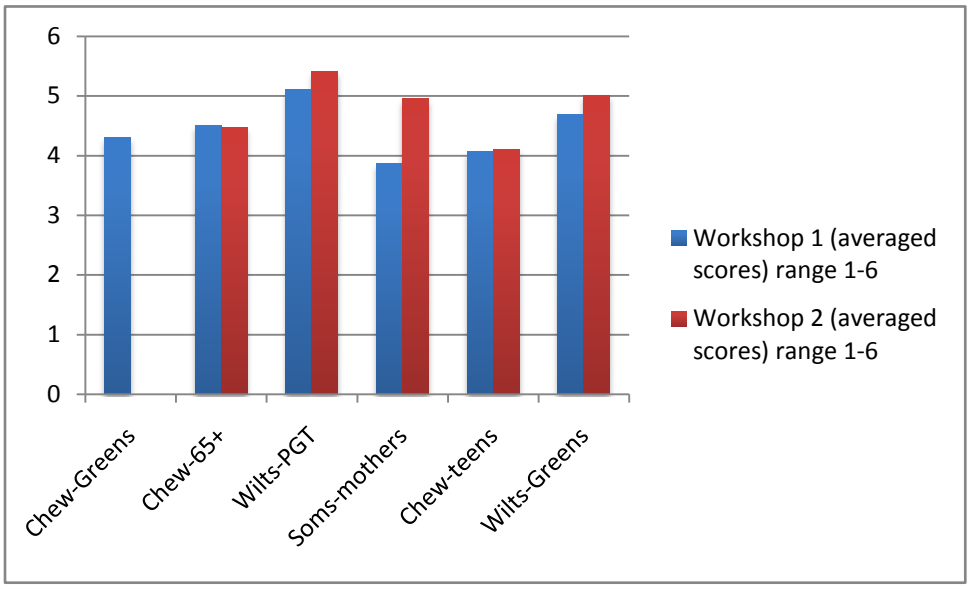

Figure 4.16 Collective efficacy scores across our audiences

Chapter 2 and Appendix K introduce the notion of self-efficacy as a predictive concept: the intention to change a habit, or adopt a new regime depends to some degree on a firm belief in one's capability to exercise control over that habit and to achieve stretching goals. Participants scored themselves on a range of questions in this vein at Workshop 1 and at the end of Workshop 2. The detailed analysis is presented in Appendix K. In short the results indicated no statistically significant increase in collective efficacy in our audiences. Yet a slight increase in the scores of three audiences is observable and consistent with our analysis of these audiences. Soms-mothers for example recorded the greatest increase in efficacy – consistent with the reflection that this was the audience who showed the most potential for change in environmental behaviour and who drew directly on the stories as a source of ideas for action. Similarly a slight 'boost' in scores can be seen for Wilts-PGT and Wilts-greens. It is possible that there was already a 'ceiling' effect by the first workshop – self-efficacy may already have been high amongst these self selecting groups who were signed up to the purpose of the workshop. Further there may be a 'sleeper' effect whereby shifts in self-efficacy take more time to manifest.

The analysis of **individual self-efficacy** did reveal a significant increase occurring for four female participants: two from the Chew-65+ group (including Margaret from Story A5), one from the Wilts-greens group and one from the Soms-mothers group (Ruth from Story A6). These results show that the research process can support a noticeable increase in the confidence of some participants to undertake pro-environmental changes in their lives. That two were from the Chew-65+ group chimes with themes from Jean's Story (A4)

and the earlier reflections about lack of confidence in this group overall and the potential the process has to build that.

Key questions/speculations arising:

- With more workshops, might the approach piloted have the potential to empower more participants to act?
- What is the relationship between individual confidence and collective confidence to act? How might increases in individual confidence manifest in collective action and vice versa?
- Has the research perhaps highlighted an under-confidence in some females that could be enhanced by participating in such a pilot?

4.2.3 Inter-generational silos

Summary of key points:

- The research surfaced inter-generational differences and at times highlighted tensions and negative perceptions between generations.
- The tensions were particularly in evidence between the generation of our older advocates and the adjacent generation of their children.

Discussion: The third key area of interest across our audience groups is to do with inter-generational differences. We noticed how perceptions of the films and issues of concern varied considerably across the generations. For example, a few women from the middle age group of Soms-mothers reacted strongly to the 'make do and mend' themes of Helen's digital story rejecting the message as belonging to the 'older generation'. However, the younger generation – the Chew-teens girls – had no such reactions. They appreciated Helen's story and recalled with fondness watching their grandmothers engage in such activities.

Taking the issue of waste as another example, the research surfaced the clear anger and frustration expressed by many of the Chew-65+ group at the apparent 'throw away culture' of the generations below. Wilts-PGT and Soms-mothers also shared this concern, but instead of directing their energies at reducing their children's food waste they were more concerned by the materialism and of over-consumption of 'stuff' by their children. Soms-mothers in particular explored ways they might reduce consumption overall in their

households as well as educate their children at the same time. On the other hand several Chew-65+ participants mentioned how hopeless it was to try to influence their children. So these adjacent generations shared a concern about the issue of waste and a desire to instil good 'values' in their children. However, where they chose to focus on that issue varied according to their age and lifestage.

There was some indication in our research of what we came to call 'inter-generational myopia'. By this we mean that the older generations felt misunderstood by the generations below them, and the younger generations did not feel listened to by the generations above. This compounded a difficulty that all generations seemed to have in thinking about the issues, concerns and points of view of other generations. In adjacent generations the desire to bridge that divide was particularly low. A number of Chew-65+ participants decided to reach out to their grandchildren rather than their children at the end of Workshop 1. Both our oldest and youngest audience groups expressed some disempowerment in their ability to advocate across the generational divide. Chew-teens were respectful but distant from the films, and felt no one listened to them. Yet some of the Wilts-greens, Chew-65+ and the storytellers themselves wondered tentatively would younger people listen to their stories?

> *I'd be interested to know what the other age groups have come up with. We've said that we think we are probably doing all we could, would all the age groups below us agree with that? Do they think we could be doing more, and we're not seeing it? Also, do you think that they would learn from us – would they listen to us?* ***Chew-65+ participant, Workshop 1.***

As a research team we wondered whether we had contributed to this issue of myopia by convening similarly aged groups? Our single generational groups were certainly free to make assumptions about other generations and have these unchallenged. Yet we also felt this allowed the groups to discuss issues that concerned their generation and safely voice their thoughts and frustrations with other generations. The story of Isabella (Story A3) accepting the longstanding offer of an older lady to knit for her suggests that the stories did inspire some crossing of the generational divide. We conclude that adding some inter-generational dimensions to the approach we have piloted could well be an avenue worth exploring further. This might be included in the action research process (e.g. bringing generations together to discuss the films and create action plans together) or in the digital story creation process (e.g. creating digital stories that show more interaction between the generations).

Key questions/speculations arising:

- Is there an 'inter-generational' myopia that hinders older advocates from reaching out across the generations?
- How might single generation groups exacerbate or reduce such 'myopia'? Might it be possible to extend the process to be more inter-generational and so to work effectively with these inter-generational issues? If so how?
- Is there a 'skip our children's' generation' effect worth exploring whereby older people might be encouraged to find ways to advocate to or perhaps with the generation of their grandchildren.

4.2.4 Links to Defra segmentation evidence base

Summary of key points:

- The research identified some interesting links to the Defra segmentation evidence base, both affirming it and, in some ways, challenging it.
- The suggestion is that segmentation may not be as static as this evidence base suggests and that a dynamic reading of it might support finding new pathways to action.

Discussion: As Chapters 1 and 2 outlined, our research was informed by but did not build directly on the Defra segmentation model which divides the population into seven segments according to their willingness and ability to act in relation to environmental issues. The figure below reproduces this model from Defra's Framework for Pro-environmental Behaviour (2008) report and situates the seven segments in relation to these axes.

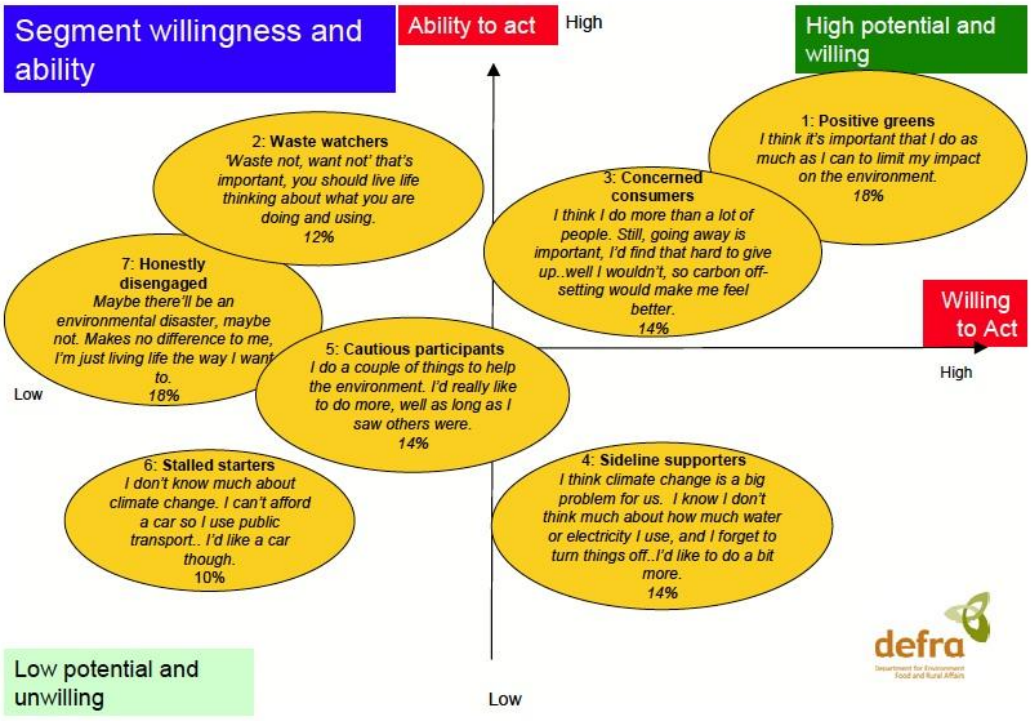

Figure 4.17 The Defra segmentation model - reproduced from the Defra Motivations report (2008)

Only our storytellers were scored fully for their segmentation at the start of the research. However our baseline poster session and the participative work throughout was in essence exploring with participants their ability and willingness to act and so was adding nuance to the segmentation model and in places challenging it.

For example, our characterisation of the Chew-65+ audience might seem to map identically to Segment 2, 'Waste Watchers', yet in profile some of these participants would likely have been 'Positive Green'. Bill and Margaret (from Story A5) for example were already very environmentally active – they had after all bought an eco-house. Yet their story shows how waste-not want-not values motivated that choice and raised questions for them now. Similarly, at face value, one might have expected some of our storytellers – Pat and Keith for example – to profile as 'Waste Watchers' – yet they were already very actively engaged in green behaviours and so profiled as 'Positive Greens'.

Thus the segmentation characterisations and names can lead to over-simplifying conclusions that are not always helpful. Isabella of Story A3 was hard to place in terms of segmentation. Was she a 'Concerned Consumer' or a 'Sideline Supporter' or even a 'Positive Green' when she engaged with the research? Was she a 'Positive Green' at the end and would she stay there? In

our view these questions might not be the most pertinent ones. What is more important is to consider the mobility of participants along the axes and how the research process helped to facilitate that. Here a more dynamic reading of the model can be very helpful and from this links to the segmentation can also be made. The figure below nominally represents the rough location of our audience groups and includes a suggestion of the movement of some participants.

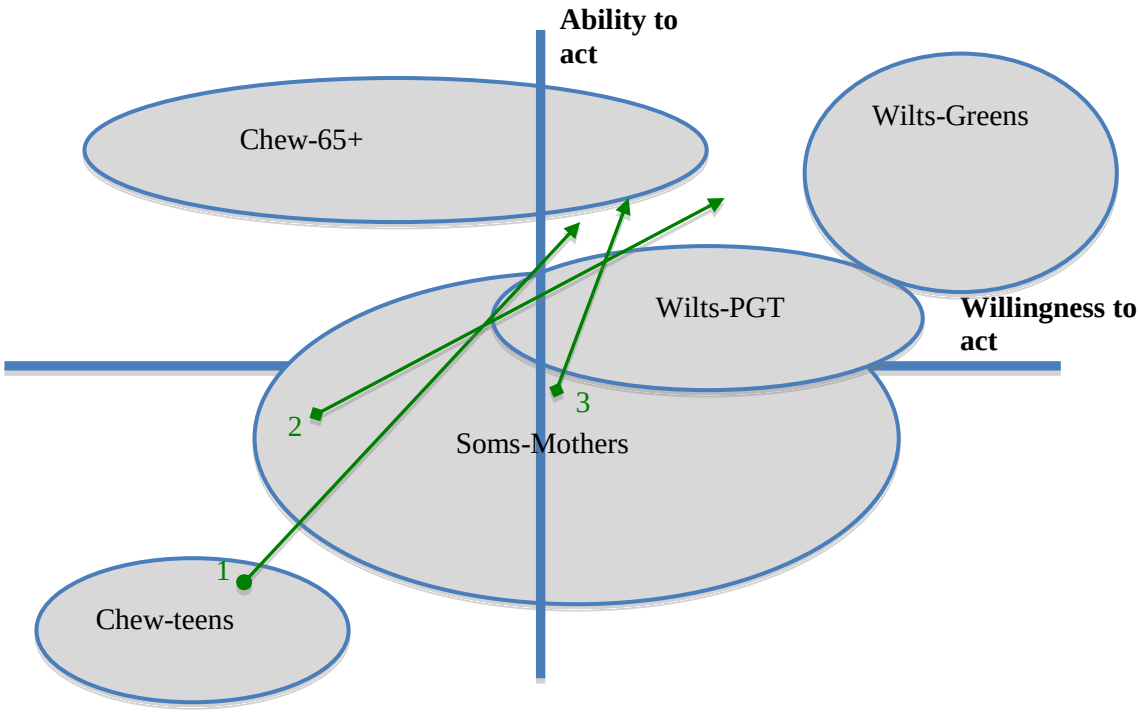

Figure 4.18: A nominal representation of our audience groups with a suggestion of how 3 participants moved through the process (1: Zoe and Grace from Story A1; 2: Ruth from Story A6; 3: Isabella from Story A3)

All our participants (except Chew-teens) had some willingness to act as this was a self-selecting process and hence a biased sample. Yet even with Chew-teens we saw from Story A1 how two girls moved quite dramatically from a stalled to a pro-active position (arrow 1 above). Where our research was most effective was with Soms-mothers where their ability to act was greatly boosted by seeing the films and sharing tips and questions in discussion. Isabella's story (A3) in particularly illustrates this (arrow 3 above). Ruth and Vicky (of story A6) illustrate how willingness to act can play into this. Ruth's will to change was greatly strengthened by the research process (arrow 2 above) whereas Vicky also became more willing though her shift towards taking action was slower. With our Wilts-greens we could say that overall they were 'willing

and able' to act from the start: perfect Positive Greens. Yet what the action inquiry work did here was help to unpack the strictures of such a label and allow them to, in some ways, admit where they were still unwilling or felt unable to act. This then opened up the potential for creative ways forward.

So our work suggests a more dynamic reading of the segmentation model. It highlights that our process was working variously along both axes with stories and action inquiry processes acting variously to effect individual's willingness and ability to act. It suggests that transformations in behaviour can be 'unlocked' at times where a high mobility is observed. Equally it suggests caution with locking people into segmented characterisations (even positive ones) as this can create a static, neat picture that closes down new possibilities and denies the possibility of inconsistency and fallibility.

Finally, our work in this area also starts to point to some interesting possibilities where the effect of social process on segmentation is also factored in. A group like our storytellers or the Soms-mothers were unified through age or life-stage but were varied in their attitudes to and knowledge about the environment. Our observation was that this variation led to very productive knowledge sharing and challenge. For instance, Nick became the de-facto renewable energy expert in the storytellers group. And within the Soms-mothers group the more pro-active members of the group clearly led the way with suggestions and ideas for those seeking ways to change. This diversity very positively supported the depth with which the group could learn and explore change together. This was an ideal situation for productive inquiry, which was what our action research process was hoping to enable.

Key questions/speculations arising:

- Might a dynamic reading of the segmentation model be helpful in finding new pathways to accelerated pro-environmental change as well as helping avoid complacency in those segments considered to be already 'pro-environmental'?
- Might the social learning occurring in action research groups have some potential to help unlock some such 'high mobility' pathways? If so how does this work?

4.2.5 Opening up Inquiry spaces?

Summary of key discussion point:

- What was the social process going on in our workshop and how did it work across audiences? Might the idea of ‘communicative space’ be a helpful way to explain it?

Discussion: This fifth cross-audience point is speculating around the idea of ‘inquiry space’ as a potentially useful idea to help interpret what might actually have been going on in our workshops. By inquiry space, we mean a space where individuals feel able to voice and explore issues of importance to them, and to question assumptions or normalising patterns that might hamper such exploration. So for example, the Wilts-greens were so strongly identified as a ‘green’ group that individuals may have had difficulty exploring areas where they were failing to take action.

Inquiry space relates to the theoretical concept that action researcher Stephen Kemmis calls ‘communicative space’ (Kemmis, 2001). He defines this as the space between so-called ‘systems’, and 'lifeworlds'. Systems are those features of modern society concerned with ‘material reproduction, where commitments to efficiency, predictability, and control are paramount’. ‘Lifeworlds’, according to Habermas are “given shape through the media of value commitments and influence, are qualitative, and enacted and reaffirmed in communication” (quoted in Gayá Wicks and Reason 2009, p243). In the ‘communicative space’ there is potential for transformative change.

Sue’s story (Story A2) illustrates this space beautifully as she grapples between the school ‘system’ where she works and her ‘lifeworld’ that recognises a love of nature and her need for peace. Similarly the discussions in the Soms-mothers seem to fit adeptly into this space given the ‘lifeworld’ practical and values-oriented concern of bringing up their children; but in a way that nonetheless interacts with the ‘systems’ of their jobs, schools and communities. The inquiry space in this group we felt was particularly rich, as it was with the Wilts-PGT and at times with the Wilts-greens audiences. With all groups we saw that a group might itself express implicit systems and norms of acceptability. Where communicative space was opened then these too could be questioned as they were with the Wilts-green group.

The research set out then to create inquiry spaces into ‘pro-environmental behaviour’ and where possible or appropriate to open ‘communicative space’

as a route to more transformative change. The emphasis then was as much on learning as it was on behaviour change itself, as the later section on action research will discuss.

Key questions/speculations arising:

- Might we re-frame what we were doing as creating spaces for pro-environmental learning rather than change? If so what role might such spaces play in terms of stimulating pro-environmental change?
- Is the idea of communicative space a useful one to work with in understanding the potential of social process when it comes to complex pro-environmental issues?

4.2.6 One size fits all?

Summary of key points:

- There was a wide diversity across and within audience groups in terms of how participants engaged with the workshops and the value they drew from them.
- The workshop designs seemed to cater well to this diversity suggesting the process was robust across age groups.

Discussion: Finally, a reflection on how the process worked across our audiences. The forgoing discussion shows that the stories appealed differently and worked differently both within and between audiences. This was true too of the action research process overall and we will expand on this in later sections. For now we note that there were clear differences both within and between audiences in how they engaged with the participative, research process and how comfortable they were with it. The differences were most obvious at the younger and older extremes of our audiences. Chew-teens engaged with the research at first very much as a school lesson and as it became apparent it was different they responded with a degree of discomfort, rowdiness and delight. They embraced with great energy the interactive exercises and yet it was evident that some quieter pupils found group discussion, whereby each person took time to speak and be listened to by their peer group, difficult. Chew-65+, on the other hand enjoyed big group discussions and some of the exercises. However at times they clearly found the participative process hard going and the lack of an ‘expert view’ from the

research team sometimes challenged them. Audiences in between were, overall, more comfortable with the process, with Wilts-greens possibly being the most positive overall. Nevertheless, within each audience, as with the films, different elements appealed to different people. What we saw then on a gross scale across age groups applied also within groups according to personality, learning preference, age, gender and so on. Yet we concluded that, the process and the stories were varied enough to engage this wide diversity of participants on a variety of different levels. Therefore, in a way, one size did fit all, though the results varied considerably according to the audiences. Each workshop felt entirely different.

Key questions/speculations arising:

- We speculate that the stories and action research approach used would have worked well with a wider range of audiences and as an approach in itself would scale up reasonably well despite the limitations of our starting sample.

4.3 PART C: Reflections against the research questions

In Chapter 1 we introduced our research questions and sub-questions across five areas. We now respond with a discussion and summary of our findings in each area. These summaries speak back to the original questions, though not always directly. This is because in places the original research questions have themselves been called into question by our insights through the process. We flag this in some cases and conclude each discussion with some of the key questions and speculation that arise for us now. Note too that the findings in this section are interpretive but we consider them to be well grounded, i.e. they build on the evidence base presented thus far; the narratives of Chapter 3; and the audience related findings presented in the earlier sections of this chapter.

4.3.1 Digital Stories

Research question What impact does watching the digital stories have on the pro-environmental behaviour and advocacy of the participants?
Sub questions How does the form and content of a digital story and the storyteller(s) featured in that story impact on participants? What works well? What works less well? What's important to consider when creating a suite of such stories? How did the stories (individually or as a suite) support or stimulate participants' pro-environmental behaviour? What were the differences/similarities between audience groups in terms of their response?

What has become clear in this research is that the digital stories have contributed to an impact (i.e. outcomes) on the pro-environmental behaviour of many participants. However the link between the stories and that impact is complex and is tied up with the action research process used. Participants did generally not copy behaviours in the digital stories – though in a few notable

cases they did[16]. Instead participants' pro-environmental actions resulted from a process that started with their response to the digital stories. Thus the original research question is difficult to answer as it suggests a causal link from the story to the action. What we can respond to however are the sub-questions in terms of how audiences responded to the digital stories and what was important in stimulating that response.

Our three-minute digital stories were universally well received suggesting an overall acceptability of form, tone and production. Within that each story brought personality, subject matter (e.g. the behaviour/activity featured) and a storyline together differently. Responses varied widely accordingly and showed participants connecting on different levels and in different ways – both emotionally and rationally - to the stories. For example, a participant might have been reminded of a family member by the storyteller and/or be interested in the activity shown and/or have enjoyed the overall story being told. Pat's story for example connected on all three levels with Chew-65+ participants, however less so with the younger Wilts-PGT group. The two stories that had widest appeal across *all* audiences were those told by Nick and Keith. Their stories, we would argue, brought the different dimensions together most effectively by combining compelling storylines (i.e. Keith's personal history as a policeman and Nick's community school project) with emblematic or popular behaviours (i.e. gardening and solar energy); and a particular style of storytelling that participants found particularly warm and authentic. These two stories were cited most often as being 'inspiring' across age groups.

However, we found that having stories that led to debate and disagreement were equally valuable. Tim, Helen and Andy's stories stimulated the most debate. Particularly helpful were those stories that featured dilemmas or paradoxes in being environmental – whether conscious (e.g. Andy's discussion of travel dilemmas) or unconscious (e.g. the Country market participant who mentioned the local jam was so delicious she flew it to Singapore for her son). Perceived authenticity was more important than the appeal of the storyteller's personality per se. In all but a handful of responses, all stories were found to be credible and believable and the response to our storytellers was overwhelmingly appreciative across age groups. Once this credibility had been established, the strength of reaction – whether negative or positive – was what fuelled the subsequent action research and built the potential for inquiry and action. Negative reactions arose when either the storyteller or the story reminded the participant of an unpleasant experience

[16] For example some Wilts-greens reported putting a bucket under the shower just like Andy

(e.g. where Nick's story evoked for a Soms-mother the frustration of a failed local solar project). Luke-warm – though often appreciative - responses then were less likely to stimulate discussion or action.

Multi-voiced stories (Pat and Ian's, The Country Market) overall seemed to have less impact overall. Here we surmise that the important element of personality was diluted by having more people narrating. Additionally, Pat and Ian's storyline was not as practically focused. It featured a range of behaviours and the storyline was a little more removed from practical action, as it was a general discussion of what it means to take a pro-environmental approach.

However Pat and Ian's story had a vital place in the suite overall in helping bring it together and reflecting on pro-environmental approaches more broadly. We concluded that individual digital stories cannot be considered in isolation but need to be considered in the context of a 'suite'. An unexpected finding was how well the stories together demonstrated a mosaic of potential action that as a whole inspired audiences whilst also making those actions seem more possible. Some audiences – and in particular the storytellers themselves – commented that the story set affirmed their individual actions as part of a bigger picture. As such it took away the feeling of pressure to do it all. The suite then as a whole delineates a realistic, possibility space of pro-environmental action.

As we have already discussed, because of the green-minded bias in our sample, Soms-mothers were the only audience who explicitly drew on the stories themselves as a resource of ideas for action. Yet the finding is that it is the possibility of action demonstrated by the story suite that is important and that participants can connect with that differently through the process. The conclusion is that digital stories will work more effectively in a suite; and that suite should be designed with some variation in personality, content and storyline whilst sticking to some principles of form that ensure the credibility and authenticity of the final result.

We found that there are some responsibilities with digital story creation and particularly working with this older generation. It is important to help them tell a story they want to tell, whilst also shaping it to an agenda and being clear with the storyteller about that. Though some of our storytellers were explicitly 'environmental' others were not. For these storytellers, particularly the behaviours featured in our stories, were merely an 'effect' of a life lived and as such were rooted in past history and memories that were important to the storyteller. To create an authentic story, and in order to work responsibly with

the storyteller, it was as important to do justice to that past as well as to describe the present.

In terms of advocacy, we found that digital stories created by older people have the potential to carry messages across the generational divide and to achieve a broad reach. The research found plenty of evidence of this divide (see 'inter-generational silos'). The stories also evidence some of the issues facing this generation in making their voice heard: see Jean's story A4 as well as Bill and Margaret's story A5. The Chew-65+'s acceptance of the story suite as valid, together with the way these stories were accepted across generations, show that the digital story form we used did succeed in presenting older people's every day environmental actions in a palatable way.

As already discussed, a recurring theme across our audiences was a desire for more inter-generational aspects in the research – either in the stories themselves or in the audiences. Where stories (or storytellers) were too distant from audiences as we saw with Chew-teens, the potential for them to have an effect was lessened. Having a story suite that features different age groups or family groups might help to increase outcomes across age groups. It might also help lessen the inter-generational myopia we have discussed and further stimulate ideas for cross-generational action.

Learning/insights: Digital Stories

- The digital stories impact on participants' pro-environmental behaviour and advocacy in a complex way. Behaviours in the stories were generally not 'copied', instead they 'inspired' action that started with a response to the digital stories.
- The form of the three-minute digital story was universally well received and had a positive effect on the behaviour of most participants.
- The digital stories worked by evoking an all-encompassing response – from the emotional to the rational. People connected differently according to life stage, personality and, in some cases, gender.
- In terms of content, the most 'inspiring' stories combined the dimensions of personality, storyline and the pro-environmental behaviour/activity most effectively.
- Having believable storytellers whose motivations are clear worked well to establish credibility. Having storytellers who remind audiences of people they already know further enhanced this believability.
- To have an impact it was not essential for a story (or storyteller) to be liked. The strength of reaction evoked (positive or negative) was more closely related to impact.

- Stories containing paradoxes or elements that had resonances with participants' personal experience worked well to evoke reaction.
- During the story creation process, it is important to consider the storyteller's personal history and motivations even where these are not environmentally framed. This contributes to an authentic and ethical story
- Multi-voiced or more abstract stories worked less well and had less of an impact stand-alone. However these played an important role in the story suite.
- A diverse suite of pro-environmental stories creates a 'mosaic' of potential action that opens up choices as well as re-empowers individuals by highlighting they 'don't need to do it all'.
- The digital stories succeeded in representing the views and activities of the older generation in a different and palatable way to younger audiences.

Key questions/speculations arising:

- Might stories featuring more inter-generational aspects have been even more effective?

4.3.2 Action research

Research Question How does taking part in an action research process enhance the impact of the digital stories on participants?
Sub questions How did taking part in the action research workshops impact on participants' pro-environmental behaviour or intentions to act? How did the action research process enhance the impact of the digital stories specifically? What worked well? What worked less well? Specifically, how effective were the individual elements: e.g. storybooklets, action research diaries, posters and supporting information?

As with the previous research question, we have found that distinguishing the impact of the digital stories from the action research process has been difficult. Hence the overarching research question of how one might enhance the other is not easy to unpack. However in this section we can take the sub-questions, looking at the outcomes of the workshops overall. From there we can then start to look how the stories and workshop processes interacted to create the potential for pro-environmental change.

As the tables in our audience summaries show, the workshops stimulated a wide range of pro-environmental activity for all but one audience (Chew-65+). How did this activity relate to elements of the workshops including the digital stories? The relationship seemed complex and it differed within and across audiences. Where links could be made between the actions reported and the workshops, these often related more closely to what had been surfaced through the action research process (e.g. small group discussions or pledges) than the films themselves. Take for example Isabella's actions (Story A3) on carbon offsetting that built on suggestions made to her in session. Or all of Ruth's actions (Story A6) that depended on her reconnection with environmental issues - which was opened up by the interactive poster session and subsequent discussions. Yet some of her actions were informed too by the stories. We concluded then that the action research process was inextricably intertwined with the digital stories.

Additionally – and building on our earlier discussion of 'inquiry spaces' - we conclude that through this action research process we were providing a space where pro-environmental behaviour change could be explored as opposed to being directly affected. We term this a 'pro-environmental learning space'. By 'learning space' we mean a place where our audiences could explore possible pro-environmental behaviour in the light of the stories *and* their personal contexts and motivations. As a result the possibility for action is increased. This interpretation we find sits best with the wide variation in response that we found across our participants and the different needs we found across those participants.

If this was a pro-environmental learning space, how was it working? We concluded that what worked particularly well was the way in which the workshops opened the link from 'macro' issues to 'micro' actions. At the start of the research the macro issue of the environmental crisis was introduced and discussed. Then, through the digital stories and the process, we were helping individuals connect to that macro issue and *crucially* to explore possible micro-actions they might take in their everyday lives that in some way responded to this. How well individuals made this connection varied. Two

Wilts-PGT participants for example were more comfortable to discuss macro-issues whereas others in that group worked from a more personal viewpoint and the actions they reported in Workshop 2 were more grounded and specific as a result. With Chew-65+ there was an overall framing problem that meant this linkage from macro to micro did not work well. They were interested by the macro issues of climate change but felt no strong need as a group to explore possible more personal routes to action.

However much the responses varied, we found that the digital stories were the crucial bridge from the macro- to the micro- and played a key role in opening up this pro-environmental learning space. With three audiences Wilts-greens, Wilts-PGT and Soms-mothers that role was central. The down-to-earth practical stories provided ideas, stimulation and inspiration that flowed directly into the action research process. This was particularly the case with Soms-mothers where the films served as a resource of specific ideas. With the remaining two audiences the stories were important but more marginal to the action research process. The Chew-65+ group identified strongly with the stories – hence there was in effect little more to say. It was the subsequent action research process that helped start to open up the issues that were important to them – which we found to be the macro issue of waste and consumerism and the difficulties with advocating to younger generations. The Chew-teens group on the other hand identified least with the stories. Here too the action research discussion and exercises – particularly the diaries - played a greater role in supporting the actions the group ultimately took.

Across all audiences groups we found the process showed an important potential to stimulate pro-environmental advocacy within family and community settings. The action research process also opens up the possibility for social process to shape and suggest pathways to action – itself a form of pro-environmental advocacy. We would suggest this could be explored further. For example, the action research space could be further developed to help participants to develop and practice their advocacy perhaps through storytelling and other means and to set action plans to try that out in their families and communities.

Where the action research process did not deliver was in terms of information and support to understand the complex trade-offs involved in making pro-environmental choices. Participants were encouraged to acknowledge that seeking out such information was itself an action – however take-up of this suggestion was relatively low. A handful of participants included researching environmental choices as an action in Workshop 2 – fewer still made reference to using the information sheets we had handed out. It was clear that

some participants felt in need of information in session and this hampered their actions. See for example Bill (Story A5) really wanting to know more how about some specific energy trade-offs in his eco-house. Participants expressed through the research a need for clear, unbiased information to support their pro-environmental choices and how that might best be found and linked to our more narrative-based approach remains an open question.

Finally, regarding the final sub question about the effectiveness of the action research elements and instruments. This question is largely addressed by the discussion in Chapter 2 that lists these elements (see Figure 2.11) and then discusses the use and effectiveness of each one. What this discussion shows is that some of these elements worked well across the board (e.g. storybooklets, Defra segmentation posters); some worked very well with a few participants and not at all with others (e.g. pledges and action research diaries); one element (the supporting information) was not effective and finally some elements difficult to evaluate (e.g. free-fall writing, message in a bottle and visualisation). Overall the mix of formative and evaluative instruments worked well in the research and the diversity of approaches we took (e.g. some written, some visual) appealed to different styles in our audiences and so allowed for greater participation to occur.

Learning/insights: Action Research

- The original question of how the action research process enhances the impact of the digital stories is hard to answer as the research could only track the outcomes of the entire workshop.
- Taking part in the workshops stimulated a range of pro-environmental actions and responses. The level of response varied from low (e.g. Chew-65+) to high (e.g. Soms-mothers).
- In many cases these actions/responses could be linked more directly to elements of the action research process than to the stories. However the stories did also inform a number of actions taken.
- What worked well was how the workshop process bridged from the macro-issue to micro-actions. The digital stories were central in forming that bridge by showing realisable, achievable actions.
- How well participants could situate themselves on the spectrum from the macro debate to practical personal action varied according to personality, age, level of interest and general learning style.
- It may be helpful to reframe our intervention as creating a ‘pro-environmental learning space’ whereby stories and an action research process stimulate personalised changes rather than replicated action.

- Action research worked well with those digital stories that that surfaced points of disagreement, reaction or paradox by supporting participants to unpack these. This allowed them to deepen their exploration of pro-environmental behaviour in a more personal way.
- The process worked less well with participants who sought expert answers, information and guidance to change. Information we did provide did not work well to meet this demand.
- The lack of clear information regarding some pro-environmental choices and trade-offs did potentially limit the actions of some participants.
- Formative and evaluative action research elements can be usefully combined to address research questions as well as to support participants' learning.
- A diversity of different action research elements appealed to participants' variously depending on their style and learning preferences and so allowed greater participation to occur.

Key questions/speculations arising:

- Might having clearer information available to support participants' pro-environmental actions helped to extend the impact of the process? If so what form should such information take?
- Is there scope for this process to developed by focussing more on 'cascading' and amplifying pro-environmental advocacy by taking it into new settings in workplaces, families and communities and stimulating new stories to be told there?
- What are the implications of re-framing the work done here as creating a 'pro-environmental learning space', particularly in terms of scaling up this intervention?

4.3.3 Storytellers

Research Question What is the impact on the storytellers of taking part in this process?
Sub questions What was the impact on the storytellers of making their digital stories and taking part in the action research workshops? Who makes a 'good' storyteller for a process like this?

Figure 4.19: Reporting back about the research at the closing storytellers workshop

> *You mustn't forget the value to the storytellers and the way it's affected them. It's not just receiving a story and doing something with it and then that stimulating some kind of change. But if there was some way that the recommendation could be for a lot more people to become storytellers.* ***Ian, at closing storytellers' workshop***

Our research work with the storytellers over four group workshops and several one-to-one meetings during the story creation phase allowed us track – to some extent - the impact of the process on them, what they valued about it and where they found it challenging. Our research design had been limited in

the degree to which it set out to explicitly track the impact of the process on our storytellers. As Chapter 2 describes, the storytellers' final reflective workshop was only added to our research plans later when it became apparent we were missing an opportunity. Also, as Chapter 2 outlined, our storyteller workshops followed a similar but different design to our work with audience groups. Interactive posters and taped inquiry sessions helped us track the storytellers' reflections, but we used fewer evaluative instruments that directly tracked actions taken. Thus, our findings are more thematic and do not include tabulated 'actions' as our audience summaries did.

Firstly, the research showed that agreeing to become a storyteller was associated with feelings of uncertainty and for some nervousness. Helen for example (see Story S1) was unsure of her environmental and storytelling credentials. Even where these credentials were assured, as with Nick, the process was challenging him to reformulate his longstanding environmental advocacy in a new way (see Nick's story in S2). Thus the process was supporting our storytellers to say things in new and different ways. We found that creating a trusting, confidence-building environment to help them do this was vital. All participants highlighted the story creation process with Lisa from Storyworks as a very valuable, enjoyable phase of the research. Our research shows that the reflective storymaking process is one that requires care, and the time and attention to build trusting relationships.

Once engaged, positive outcomes started to be reported when the group came together to view the digital story suite at the second, screening workshop. These benefits included:

- A sense of community pride (expressed by all storytellers on seeing the suite of films).
- A mixture of feelings on viewing one's own film that included self-judgment, self-consciousness, embarrassment, relief and pride. This was, to an extent, mitigated by affirmation and reassurance from fellow storytellers.
- A sense of individual empowerment and connection that arose from seeing one's own story in the context of others. Several storytellers agreed they felt less daunted by this than 'having to do it all'.
- A sharing of knowledge, tips and views on environmental issues between storytellers at the workshops.
- An ongoing and, for some, an increasing belief in the power of storytelling as an approach for change.

All these themes were re-iterated a year later when we met at the final closing workshop when other outcomes and/or reactions were recorded as follows:

- A sense of disappointment in the community (expressed by one participant in response to the poor turn-out of the Chew-green audience).
- An ongoing sense of discomfort or uncertainty about their digital stories (see both Helen 'S1' and Keith's 'S3' storyteller stories). In Helen's case this may have prevented her showing her film.

At this workshop we could also begin to gauge the impact of the process on our storytellers' sense of advocacy. All but one mentioned they had discussed the research with friends and family. At least three storytellers had shown their story to family and/or friends. As Keith's story (see S3) shows, he had taken this advocacy further by going to his local school and sharing his story with pupils there and he reported back at the workshop the themes they raised.

Just one storyteller reported a direct impact on their pro-environmental behaviour. Pat reported that she had effected a number of energy efficiency measures at home that included loft insulation, light bulb changes and turning the gas down. Unexpectedly the Storyworks researcher, Lisa, also reported several specific impacts on her behaviour including putting her name down for an allotment.

Hearing how their stories had affected our different audiences had a powerful effect on the storytellers at that final workshop. They all commented on how affirming and important this feedback was. It confirmed to our storytellers that their stories had value, and this boosted some of our storytellers' appetite (or confidence) to now show their films more widely as both Helen and Keith's stories illustrate (see storytellers' stories S1 and S3). Our research design had underestimated the importance of this step, and an earlier feedback session to our storytellers, could well have boosted their advocacy earlier.

Research with this 50 plus age group of storytellers and our work with the Chew-65+ audience underscored the premise for this research by highlighting the difficulty some of this older generation perceive with advocating to younger audiences in ways that will be heard. The structuring of their views, memories and stories into the new form of a digital story clearly does help bridge that divide and raises the question: who makes a 'good' storyteller – could anyone do it?

Clearly some people are more natural storytellers than others. We did find that some of our advocates had more of an impact than others in terms of voice,

delivery and overall personality. However, as previous discussions have highlighted, this process can support - and actually benefits - from having a diversity of storytellers with different kinds of delivery, voice and level of confidence in what they are saying. Thus we have found that being a natural raconteur is not essential when recruiting advocates for this process. Instead storytellers who have a practical story to tell, who believe in - and yet are humble in what they are describing - and who want to reflect in some way through telling their stories, make the best storytellers. From our work across audiences we often identified participants who we felt would make further good storytellers. Several from the Soms-mothers audience in particular had a questioning, thoughtful approach to the actions they were taking and that we reflected would make them authentic, compelling storytellers. We conclude then that the process had within it the possibility for bring out new stories and storytellers throughout. This could be exploited more in a way that might increase the impact of the intervention both in the originating community as well as further afield.

Learning/insights: Storytellers

- The main impact on the storytellers was personal and to an extent developmental.
- Taking part placed practical and personal demands on the storytellers requiring them to go through a process that wasn't always comfortable and that asked for a degree of courage and openness.
- Creating a trusting, confidence-building environment that includes one-to-one work is vital to help storytellers to engage in the story-creation process in a way that is of value to them.
- Ultimately all storytellers reported that it was a rewarding experience for all of them.
- Reported outcomes relating to stortyellers' pro-environmental behaviour as a result of participating in the research was low.
- However positive outcomes relating to advocacy were reported. Storytellers felt equipped with new ways to advocate and all reported an increased desire to advocate for the environment as a result of taking part. One storyteller had already followed through on this desire.
- This impact might have been further boosted by feeding back earlier to the storytellers the positive impact their stories were having on our external audiences.
- Collectively the group benefited from the process drawing pride, connection and affirmation through the process.

- There is no checklist of qualities for a ‘good’ storyteller. Openness and a desire to advocate are key. The storyteller does not need to be a natural raconteur. With the careful and trusting one-to-one story-making process anyone can become a storyteller.

Key questions/speculations arising:

- A potential for the process to surface new storytellers and stories was found but underexplored in this research. Might working more actively with this potential enhance the possibility for scale-up and impact?
- How might we have worked with the storytelling group to increase their potential pro-environmental advocacy individually and as a group within their own community? Limitations in our research design prevented us from fully exploring and exploiting this potential.

4.3.4 Cross Community effects

Research question How does the impact of the digital stories differ between the storytellers’ host community and outside communities?
Sub questions How do factors like local credibility and the storyteller being known to the participants affect the impact of the digital stories? What difference does it make if the community context is different? How well do stories travel between communities?

Three of our audiences were based in the community of Chew Valley where our stories were set (Chew-65+, Chew-greens and Chew-teens). The three remaining audiences were set in communities about 40 miles away (Soms-mothers, Wilts-greens, Wilts-PGT). Our work set out to explore the importance of the stories being locally situated and how well the stories might travel between communities.

The local context of the digital stories had a positive impact on our Chew-65+ and Chew-greens audiences. Several audience members expressed a sense of pride in their community on seeing the films. And some said they were pleasantly surprised to learn more about what was going on in their community. In particular not all participants knew about the country market or

the school solar project (Nick's story S2). In the very few cases where storytellers were known to participants (approximately four participants in the Chew-65+ audience) the remarks were very positive. However, there were insufficient participants who knew storytellers for us to draw conclusions overall about the effect of this on credibility overall.

By contrast the local context had little effect on the Chew-teens audience. They did not recognise the storytellers and did not connect themselves readily to the community depicted in the films. Work with this age group highlighted a lack of community-based role models and stories that might be addressed through research like this. But as it stood, the local context had little impact on this audience.

Thus we found that though the local context of the stories did have a positive impact it was not a significant factor in our research. Other variables such as age group and life stage seemed more crucial.

This finding was further underscored by the fact that our inter-community work showed that the stories can travel and travel well. Groups could recognise differences and similarities between their communities and those of the storytellers and this played into rather than inhibited the potential for research to have impact. Wilts-PGT for example highlighted the differences between Chew-Magna and the market town in Wiltshire where they were based. Yet the idealisation of Chew Magna as an idyllic place fuelled deeper inquiries into personal lifestyle and choices. Similarly Wilts-greens could highlight the lack of ethnic and social diversity in Chew Magna, something their group shared, but concluded how valuable it felt for them to connect to another community elsewhere doing similar things. It helped them feel less alone as a green-minded community, as one participant summed up at the end of Workshop 1. And Soms-mothers built directly on the community aspects of the suite of films, with many of their discussions and some actions (e.g. Isabella from story A3) very much framed in a community setting.

An unexpected consequence was how the workshops stimulated other communities to start telling and gathering their own stories. This was something we saw occurring in the Wilts-greens audience where they explicitly adopted a digital storytelling approach to report on one of their initiatives as a result of attending the research workshops. To a lesser extent it happened with the Wilts-PGT audience where one participant started to work more actively with a storied approach in her work at the primary school. Thus the process has elements of self-replication in it that could be developed and encouraged to facilitate the spread of the approach.

Overall, we concluded that the local context was not a key variable in this research. The credibility of the stories lay in qualities such as authenticity and believability as already discussed and this could be established equally within the originating community or outside of it.

Yet the potential for this kind of work to stimulate community pride, and to build communities ties within the originating community was identified. This applied too across communities. The power of the 'suite' of stories to speak and stimulate conversations on the level of community as well as on the level of individual action was a strong finding of our inter-community workshops.

Finally, we found no evidence of the research creating direct inter-community links. No communities sought to make direct contact with Chew Magna or to find more about the originating community. It seemed the suite of stories represented that community and stood alone as a bridge between communities.

Learning/Insights: Cross-community

- The digital stories did travel well between communities. Their impact did not differ significantly according to whether the audience was within the storytellers' community (local) or outside of it.
- The credibility of the stories and the storytellers did not depend upon them being drawn from a community known to the audience.
- For audiences within the same community as the storytellers, the local context of the stories had a marginally positive but not significant impact
- In the handful of cases where storytellers were known in the community there was a positive but not significant impact.
- The local factor had almost no bearing on the teenage audience even though they were a local audience.
- Overall the research intervention did strengthen ties, raise awareness and build pride within the Chew valley audience and storytelling groups
- The digital stories travelled standalone speaking for themselves in other communities. No audiences felt the need to connect back to our storytellers in Chew Magna.
- The digital stories probably travelled well as a 'suite' that show inter-related stories within a community – in this way the stories can connect at the community as well as the individual level.
- The digital story suite together with the action research process stimulated interest in other communities to start telling and gathering their own stories.

Key questions/speculations arising:

- In what other ways might the stories travel? Could they travel without the workshops?
- How might communities be better equipped to start telling, gathering and publishing their own stories? What skills do they require?
- Might the lack of connection of the teenagers to their local stories and storytellers suggest a need to cultivate community role models and storytellers for this group? Who might such role models be?

4.3.5 Collective ties and durability

Research question What are likely to be the enduring effects of this intervention on the participating communities?
Sub questions What is the impact on collective confidence to make a change? How does this intervention contribute to the strengthening of collective ties? How might this help sustain actions and advocacy into the future?

Our overall conclusion on the question of durability was that our research design limited the possibility for enduring effects from this intervention. With just two workshops over a three-month period and little contact with the research team between or after workshops, the possibility for developing or tracking lasting changes in peoples' lives was limited. Furthermore, whilst the collective, social nature of the process emerged as a strong factor in enabling and encouraging individual action, we were only just beginning to explore the possibilities for collective action, and only with some of our audiences, by the end of the second workshop.

The one exception to this was our storytellers who worked more actively with our research team over a longer period. Here, however, we are predominantly discussing the impacts on our audiences.

Despite these limitations, there was evidence from the research of the different kinds of changes our participants reported and indications that some such changes might endure more than others. For example, we imagine that Ruth's pro-environmental action might overall be more lasting than Vicky's (both from Story A6). We imagine, that the advocacy of Zoe and Grace (of Story A1) might sustain longer than the actions of some of their classmates that were responding more to the action diary exercise. We suspect on the other hand that no lasting influences on our Chew-65+ audience in terms of actions might have occurred. However who knows what slightly changed conversations might have occurred with their children and grandchildren as a result? Finally we see with Sue's story (A2) some potentially lasting changes made at the school, together with the germination of some more transformational changes

in Sue's life. All these are untested surmises and only some could be tested with follow-up.

Some of the intervention seems to trigger the potential for change at some point in the future and this can never be measured. A Wilts-PGT participant talked of the films now always being in her head as a resource. And with Vicky (Story A6) we felt the work contributed to her overall pro-environmental openness, if not quite enough, at this point, to trigger full-blown action. Our speculation is that where participants seemed to exhibit a 'pro-environmental learning' as well as (or instead of) an 'action' response the possibility for more durable, long-term effects from the intervention may be increased. This links to our earlier discussion about the 'pro-environmental learning space' where some participants could explore more deeply their attitudes to pro-environmental behaviour change. So, where teenagers took actions in response to our request to report back – homework style - we believe that the likelihood of such changes lasting is low. Yet repeated work over time might have supported them to establish and habituate these actions. Such long-standing support would require much resourcing. By contrast those who started to advocate changes at home as a result of thoughtful reflection would seem more likely to sustain their changed stance. However, follow-up would be needed to assess this. We acknowledge then that on questions of durable change, our research design limited our ability to both assess *and* stimulate it.

Self-efficacy scores also point, we believe, at the potential for the process to build lasting change. As discussed earlier four participants across audiences scored a significant increase in self-efficacy and a follow-up could check if such confidence remained over time and if it corresponded to increased pro-environmental action. We imagine further workshops could well help to sustain and build on such confidence.

As with the question of durability, there were also indications that participating in the research boosted the collective confidence and capacity of our groups, but this was also hard to fully evidence. Our earlier discussion on the elevated but statistically insignificant collective efficacy scores has introduced this theme. The importance of the social process in validating, affirming, supporting and modeling leadership for each other was noted throughout our field notes. The workshops served, in a short time, to build or strengthen ties within the groups. Wilts-greens remarked particularly how much they valued having a space to meet and talk differently as a group. Wilts-PGT and Soms-mothers field data and transcripts had clear examples where participants encouraged and supported each other to make changes. Tentative collective plans started to also be made in session for both these groups. Soms-mothers

particularly discussed several possible community level actions and had discussed the Workshop 1 among themselves in the school playground. They valued the sociability of the evenings – several said they found the opportunity to get together in this way and talk about something important refreshing.

Likewise, as we highlighted in Chapter 2, Chew-65+ particularly valued the sociability of the sessions with some citing the chance to meet others as the main factor that attracted them to attend. However unlike Soms-mothers, this group were less collective when it came to formulating actions - they framed their actions more as a set of suggestions for policy makers, industry players and others outside the room. The only group for whom we felt there was little additional social benefit was the Chew-teens. We concluded that this group was prevented by the strong norms and structures of the schoolroom from building a new sense of community in the short time that we had. Relocating work with this younger group to a community setting we felt would have been beneficial.

Our response to the questions in this section has not been fully evidence-based, but is an extrapolation of what we found, together with some theorising as to where the potential for deeper change and collective action in this process lies. Some, but not all of this theorising could, with follow-up be tested. Also with some tweaks to the research design, such as follow-up between and after sessions, some online support, the setting up of resource packs and so on, the potential for more durability could be built in. To realise the potential this kind of work has for collective action some significant changes to the design would be needed – for example additional workshops over time.

Learning/insights: Collective ties and durability

- The potential for both stimulating *and* tracking lasting pro-environmental change was limited by the research design.
- The social process of the workshops was significant. In all but the Chew-teens audience, workshops created a new and strengthened sense of community in a short time.
- The potential for collective action was built through the process for these audiences. To act on this more workshops would have been required.

Key questions/speculations arising:

- Elevated self-efficacy scores may suggest the potential for lasting changes in some participants – though this could not be verified.

- We speculate that changes in participants' behaviour may be more durable when they adopted an active, learning stance in relation to pro-environmental change.
- We suspect that actions that were more responsive (e.g. the pressure to report or the request to make a pledge) might be less durable.
- Overall we believe that changes/actions could have been made more sustained and therefore durable by having more workshops and/or providing more interim support.
- Even if more workshops *had* evidenced and increased the durability of the intervention what does this imply for scaling up and rolling out such a process where fewer resources would be available?
- How might enduring effects be realised in an easier way?
- What are the mechanisms whereby social processes within communities might help stimulate and encourage more widespread pro-environmental behaviour change?

5 Conclusions

5.1 Overview

This chapter draws conclusions from the research overall and considers the implications of these. As already described, this research had two key lines of inquiry.

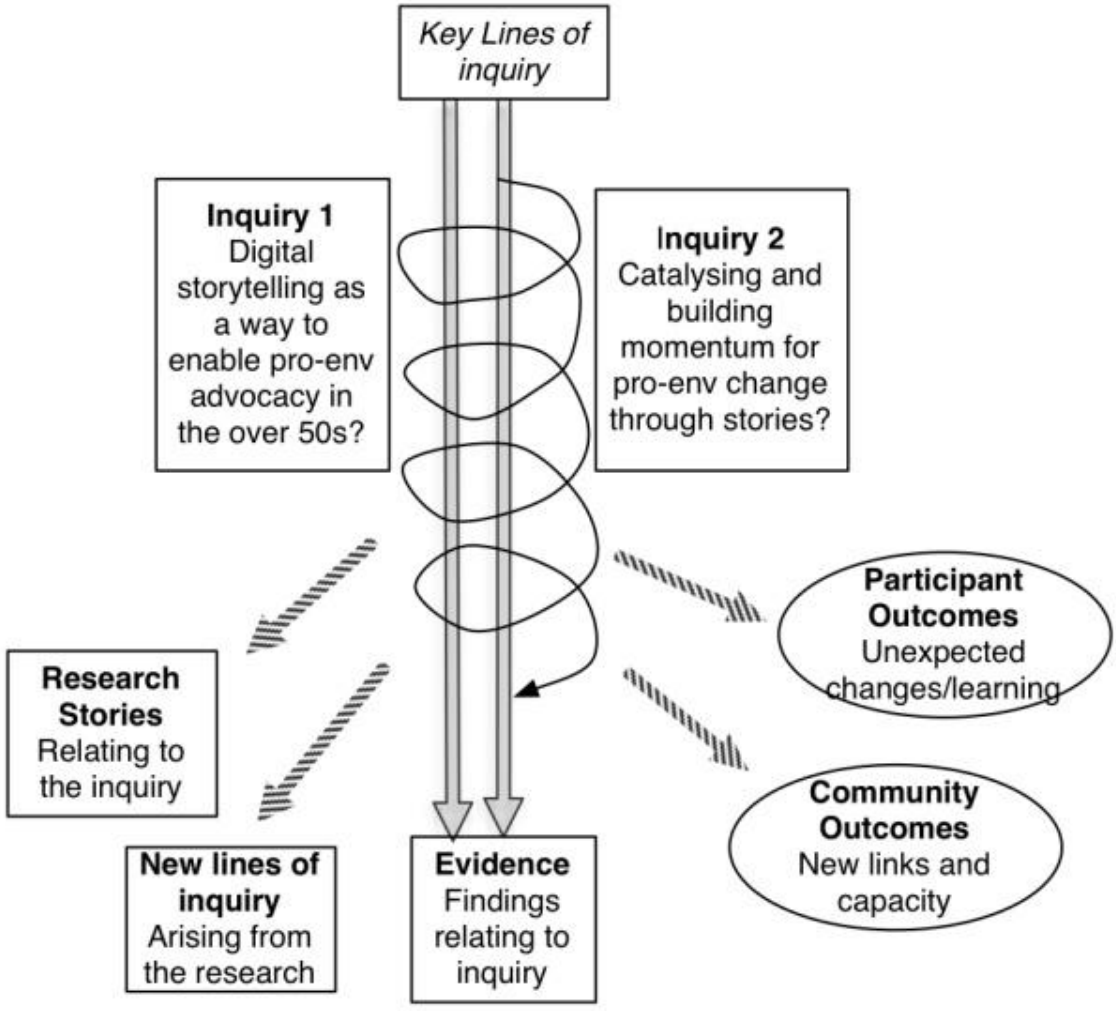

Figure 5.1 Figure 1.2 reproduced here

The **first line of inquiry** related to testing digital storytelling as a new and potentially effective means for pro-environmental advocacy for the over 50s. There was an assumption underlying the research that on the issue of pro-environmental behaviour these older generations had something valuable to offer, that was, as yet, being under utilised.

An action-research based pilot was devised to help us explore this line of inquiry. As this report has described, older advocates were recruited, digital stories were created and participative research workshops were designed and held with a variety of audiences. In effect a very particular intervention was piloted that sought to effect change and have an impact on its participants' pro-environmental behaviour and advocacy. At the centre of this intervention sat eight digital stories and it is in the context of that intervention as a whole that our conclusions are drawn.

The **second line of inquiry** was about building the momentum for change within and across diverse communities. We were exploring what we might learn from this particular intervention about accelerating lasting pro-environmental change. And as this was a limited, small-scale project we have also sought, particularly in this chapter, to extrapolate from that to explore what we might learn from this for the future.

This chapter will start in Section 5.2 by summarising our conclusions in relation to the two key lines of inquiry as originally set out and in the light of the limitations of the research design and methodology.

We then expand in Section 5.3 on these summaries by presenting ten key conclusions drawn from the body of research evidence and the key findings of Chapter 4. Section 5.4 then highlights the wealth of questions and new lines of inquiry arising from these findings. Finally, Section 5.5 concludes with a summary of the implications of this pilot project and associated recommendations. In particular we consider how what has been piloted here might be scaled up and replicated. We also make further recommendations about next steps in relation to different stakeholder groups, including Defra, community environmental groups and research practitioners.

5.2 Concluding in relation to the two lines of inquiry

What can we say in relation to our two original inquiries? And in light of the research limitations we have outlined in Chapter 2, Section 2.11. These limitations guarded us against generalisation as they include, among others, the limited sample size overall and the limited socio-economic and ethnic diversity of our storytellers and audiences. Additionally the self-selection principle for our audiences meaning that we largely worked with those already environmentally 'primed'.

In this section we step back and present short summaries of what we now believe we can and cannot say in relation to these original inquiries.

Line of inquiry 1: Might digital storytelling provide a fresh medium to give voice to older people across the 50 plus spectrum on pro-environmental behaviours and practices and so enable them to advocate in a new and effective way?

What we can and cannot say:

In this research we have piloted one way that digital storytelling can give voice to a group of eight older people (from 50-80) on pro-environmental issues. From this single project we can claim digital storytelling to be a fresh medium for advocacy about pro-environmental change – the digital stories were found by all audiences to be accessible and almost universally agreeable. We can also claim this to be a new means of advocacy for those in this older age-group. We can suggest but not claim, that digital stories might serve to develop the pro-environmental advocacy of *any* age group but that the needs of the older age group might be particularly well served by this medium. We cannot say how older storytellers might compare to storytellers from other generations. We can say that a digital storyteller does not need to be a natural raconteur. Qualities of authenticity and passion for the topic are more important.

Overall we can say that digital storytelling is an interesting, fresh and accessible medium. None of our storytellers had advocated through digital story before. Few of our audiences had seen digital stories before. Yet all participants engaged with the material of the stories and the storytellers themselves.

But what can we say about the effectiveness of this new type of advocacy and its potential to stimulate pro-environmental change? We can only say that on this project a degree of effectiveness was shown. We cannot make claims about the scale of that effectiveness or the durability of changes stimulated by this intervention. Neither can we disaggregate the effectiveness of the single digital story, from that of the entire suite and from that of the action research process itself. Thus the research has piloted an intervention that in many ways affirms the underlying rationale for that research. We can claim that there are indications that digital storytelling can be effective in the way we have piloted it and there are likely to be other ways in which it might be effective too.

Line of inquiry 2: Might digital stories, when used in conjunction with an action research process, provide the means to build the momentum for change within and across diverse communities and audiences?

What we can and cannot say:

Here the short answer to the question posed in this second line of inquiry is yes – but it comes with a caveat. This pilot project clearly did show a promising potential to build a momentum for change within the originating community of Chew Magna and also in those external communities where we worked. This project has shown that, when embedded in a workshop setting, digital stories did travel and travelled well and so can, in certain configurations at least, catalyse change. Essential to its catalytic potential was, in this research, the digital, productised form of the story. This distinguishes the digital story from other performance or oral forms of storytelling as it decouples the original storyteller from the story and allows it to travel. The research showed too the importance of that storytelling occurring in a social context – and highlighted some of the ways social process can encourage change at an individual and crucially at the collective level.

However the effectiveness of such stories to build lasting change across communities was limited in this pilot. We cannot say it was fully demonstrated. The limitations are well understood - many have been already highlighted in Section 2.11 – and those that particularly inhibit scale-up are summarised in the table below. They include aspects of the research design – in particular the limited time in just two workshops to explore and stimulate positive pro-environmental outcomes with our audiences – and also the limited size of our sample. In Chapter 4 we speculated that the approach would also have worked well with a wider range of audiences and would scale up reasonably well despite the limitations of our starting sample. Yet this was, already, a resource intensive project requiring specialised skills. Furthermore our experience suggests that, for greater impact within communities even more time and resources at the start of the project to identify and develop partnerships with key influential community insiders would be essential.

Limitation	Implication for scale-up
Self-selection meant most audience members had a pre-existing interest in environmental matters	We cannot say how this set of stories would travel across less pro-active Defra segments of the population?
We worked with largely white, middle class audiences and storytellers from rural communities.	We cannot say how well this set of stories would travel to less homogenous groups?
We only worked with 50 plus storytellers	Having stories with a greater diversity of storytellers in terms of age and life-stage would have a wider reach.
Researchers skilled in group facilitation and action research design and inquiry were required	We can say that this pilot was resource intensive. There are therefore clear implications for scale-up.
The creation of the digital stories requires expert multi-disciplinary skills in film-making and facilitation	Though some of these skills can be taught, there are cost implications and also older generations may be less likely to learn such skills.
Identifying and engaging suitable audience groups requires finding well-connected, influential insiders	More time and resources would be needed at the start of a project to find such insiders.

Figure 5.2 Key limitations inhibiting direct replication of this pilot as a means to scaling up

So whilst we can say the pilot has shown the potential of digital storytelling to build lasting momentum for change we believe we cannot say that this potential would be best realised by merely extending and scaling up the approach taken thus far. Instead, we suggest looking at some of our more speculative findings and the new questions that arose through the research. For example, we noted in Chapter 4 that the pilot highlighted that there were some instances of self-replication in the process whereby participants went out and started using storytelling approaches themselves. How might such effects be amplified in a way that might support scale-up and the acceleration of pro-environmental change?

The next section expands on these summaries by presenting ten key conclusions relating to those lines of inquiry before going on to discuss the implications of this research, the questions arising from it and recommending some potentially interesting pathways forward.

5.3 Ten key conclusions

This section crystalises from across the findings presented in Chapter 4 ten key conclusions we can draw from the research. These underpin the summaries in the previous section and form the bridge from our more detailed findings in Chapter 4 and the concluding summaries presented in Section 5.2. They result from a final sense-making step whereby the research team looked systematically across our findings, aggregating themes and clustered them into ten key conclusions as follows.

1. **The digital stories, in conjunction with the action research process, stimulated and enabled a grounded, personal exploration of behaviour change.**

The findings in chapter 4 indicate that this intervention stimulated in our participants thoughts, actions and, in some cases, further advocacy relating to pro-environmental changes in behaviour. The extent of these changes will be discussed in later points. Here we are simply concluding that the intervention was successful in having an impact and drawing conclusions about how this occurred.

We found we cannot fully disaggregate the digital stories from the action research process. However we can draw some conclusions regarding the complementary way in which they worked to achieve the reported outcomes.

We conclude that the digital stories succeeded in **stimulating** and **resourcing** participants to meaningfully explore their pro-environmental behaviour in the following ways:

- The storytelling approach provided an interesting and appealing format that engaged all the participants who took part.
- The stories acted as a bridge within the workshops, to help people connect macro environmental issues, to their micro- actions and individual behaviour.
- For some participants, the stories provided a source of ideas for new pro-environmental behaviours.

The action research process then complemented the digital stories by **opening up a discussion space**, where pro-environmental behaviour change could be explored as opposed to being directly affected. In Chapter 4 we term this a **'pro-environmental learning space'**. The digital stories supported and resourced that discussion directly.

Thus, we conclude that the action research process was inextricably intertwined with the digital stories and that this intervention was working at the level of **understanding** and **influencing**: helping participants *understand* their current pro-environmental behaviour and advocacy, and providing ideas, through both the stories and the workshops, to *influence* their future behaviour and advocacy (see 4 and 5 below, for further conclusions around this).

From this pilot we cannot draw conclusions about digital storytelling standalone as a vehicle for change and/or advocacy. We can only say that in

this particular configuration with action research, digital storytelling worked very well and showed potential to work in other configurations as well.

2. **The digital stories worked well as a form of advocacy – and some aspects worked particularly well to stimulate a response.**

Despite the point made above in point 1, there are a number of conclusions we can draw relating directly to the digital stories and the storytellers at the heart of the research. The first conclusion is that the digital story form worked. Our three-minute digital stories were universally well received, suggesting an overall acceptability of form, tone and production. Several groups commented (particularly the Soms-mothers) on how much easier they found it to absorb information this way than through more factual forms of communication. Quite a number of participants, across all groups, also commented appreciatively on the everyday nature of the behaviours portrayed, and the authenticity and credibility of the storytellers.

Secondly, we can conclude which particular aspects of the stories worked consistently well to stimulate the greatest response across our audience groups. We base our conclusions on the most frequently occurring comments in the storybooklets and discussion groups, whilst acknowledging that not all stories were shown to all groups.

The aspects which appear to be most effective are:

- Credibility and perceived authenticity of the storyteller: this was the most important factor affecting response.
- Personality of the storytelling: warm, funny, showing concern for or generosity towards others.
- Single voiced (not joint or multi voiced) stories.
- Stories which provoke a reaction of some kind, even where this might have included negative emotions such as frustration or dislike, rather than a luke-warm response.
- Stories containing paradoxes (e.g. the local country market jam being flown to a family member in Singapore) and illustrating trade-offs made by the storyteller (e.g. Andy discussing his dilemmas regarding flying).

Building on this, we can conclude, thirdly, that anyone could be a digital storyteller once they meet the first important criteria of authenticity and have the desire to tell a story. The stories of our older advocates were accepted and

generally enjoyed across all the generations. Where sometimes they provoked a strong reaction, either because the participants strongly identified with the story (or storyteller) or did not identify with them at all, this did not seem to inhibit the stories from working (in conjunction with the action research process) to stimulate action. We support this conclusion with evidence that two of the audiences who least identified with some of the storytellers (Soms-Mothers and Wilts-PGT) also recorded a high incidence of action.

The final conclusion regards the use of the story suite. We conclude that for the purposes of wider reach and to work on a community as well as an individual level – it is important to show the digital stories as part of a story suite. The story suite increases coverage of all the aspects listed above and also offers a broad range of possible behaviours with which each audience can connect. However the research did not test the alternative to this – i.e. stories standalone. Neither were we were able to test how many stories should be included in this suite. We showed five to each audience (and four to the Chew-teens) and this number seemed to work well in terms of balancing what the audience could take in and having a good cross-section of stories and behaviours featured.

3. **The confidence and motivation of our aged 50 plus storytellers to advocate was increased by participating in the digital storymaking and workshop process.**

Our research with the storytellers and the Chew-65+ audience revealed the lack of confidence that some older people feel about advocating for the environment, particularly to the younger generations. Yet many expressed a desire to pass on their stories, particularly those concerning not wasting resources. Thus our findings support the original premise for this research that had identified the older generation as a potentially willing, yet untapped source of pro-environmental advocates. Our findings also develop the premise by suggesting that some of the older advocates have not only lacked an effective vehicle for their advocacy but also, in some cases, the self-confidence to realise it.

Our findings in Chapter 4 show that the workshops, and the story creation process, served to build confidence in our storytellers about the value of their story. They were universally pleased with the content of their finished digital stories, and several commented that this form of storytelling had helped them express their advocacy in a clear and authentic way. Storytellers also showed

a willingness to use their finished story as a new tool for advocacy. By the final workshop, some storytellers had already shown their finished story to others. Once they had heard the positive feedback from the audience groups the remaining storytellers expressed an intention to do the same. Confidence was not an issue for all storytellers. By the final workshop one storyteller had already shown his story at his local primary school hinting at a potential the approach might have to replicate and build momentum within communities.

We conclude that the digital story form provides an effective medium for older people to tell their story, in a form that is palatable to others (including those from a younger generation) and the process of making their digital story served to increase the confidence and motivation of our storytellers to advocate for the environment.

We surmise that the medium of digital storytelling could serve those of any age group to become a pro-environmental advocate in a similar way. However, our findings on inter-generational effects and under-confidence suggest that for the 50 plus age-group it may be particularly effective.

4. **The effectiveness of the intervention in stimulating pro-environmental behaviour varied according to the audience groups. Certain factors make some audiences more receptive than others.**

In conclusion 1 we suggested that this process was 'to an extent' effective at influencing pro-environmental behaviour and advocacy. Here we wish to add some further clarification to that conclusion, by suggesting that some audience groups were influenced more than others, and the nature of that influence varied between audiences. Out of the five groups who completed both workshops, four moved along the continuum towards greater pro-environmental behaviour and advocacy (as evidenced by their reports of changed attitudes and behaviour) and one (Chew-65+) demonstrated some movement in their advocacy but not their behaviour. The audiences who moved the most belonged to the younger and middle aged groups (Soms-mothers and Wilts-PGT).

Our findings in Chapter 4 point to the different ways in which this intervention was working with our different audience groups. Our first conclusion is that the audience's level of understanding of, and engagement with, pro-environmental activities was a key factor affecting the way the intervention worked for them.

Where the audience group were already actively engaged in pro-environmental behaviours (Wilts-PGT and Wilts-greens) the process served to **reinforce** their current actions and advocacy and **boost** their thinking about new and creative ways to act. Where the group was less pro-environmentally active (Soms-mothers and Chew-teens) the process gave them the **time and space** to consider their environmental behaviour, and for some it served to **stimulate** some new behaviours (although the difficulties of extricating the impact of our process from all the other influences on behaviour became increasingly clear throughout the research).

Our findings across audience groups also lead to some further conclusions about other factors which make an audience more receptive, and therefore more likely to be influenced, by this kind of process. These factors include:

- The audience is based in a single community and already possess a degree of connection to each other. Sharing a common connection point can further enhance this (e.g. a group of teachers, parents, wildlife enthusiasts, Brownies etc). This enables social process to play a role and enables peer learning. The outlook of an audience does not have to be environmental – indeed greater changes were recorded in audiences whose interests were complementary but not directly environmental.
- The audience represents a diverse range of environmental views and is drawn from different socio-economic groups.
- The group has the capacity to engage with this kind of process, in terms of a well-connected and influential convenor and the group's ability to make time to meet.
- The size of the audience does not seem to be important, as the process worked effectively for groups from 8 to 30 (although we did not test the potential to work with groups bigger than this).
- Single generational groups worked well, perhaps because their age provided the common linking point referred to above – however other findings suggested that cross-generational groups might be more effective. We were unable to test this fully because we did not work with a cross-generational group for comparison.

5. **The effectiveness of the intervention to stimulate pro-environmental behaviour change in older aged audiences was low. However its potential to further develop the advocacy of this group was detected.**

Our findings indicate that the group who reported the least changes to their behaviour was the Chew-65+ group. This group were the most openly resistant to change, with some believing that they were already 'doing their bit' for the environment and, some questioned the implication from the research that they could do more. Consistent with this view, although many participants did report pro-environmental changes at the second workshop, they mostly attributed these to external factors (such as rising fuel prices) rather than the effect of this intervention.

In common with our younger audiences, this group reported high levels of enjoyment of the process, and particularly appreciated the digital stories, where they identified strongly with both the storytellers and the story content. We suggested in Chapter 4 that this strong identification might have had the effect of inhibiting the stories' effectiveness on this age group, because the behaviours portrayed were over-familiar to them.

Whilst the process was not effective at stimulating new environmental behaviours amongst this older age group we conclude that it did fulfill other important needs. A number of participants used the workshop to discuss the challenges of advocating to their children and grandchildren and some made plans to address these challenges going forward (we could not assess whether this led on to real advocacy, since we did not revisit them afterwards). Some participants also used the workshops to raise a number of questions and concerns about environmental technologies and practices which they had before the workshops began, but had struggled to get answers elsewhere.

We conclude then, that the workshops did fulfill a useful function for this older age group: firstly, by allowing them to practice their advocacy to the younger generation, and secondly, by providing a forum for them to raise their environmental questions and concerns. However, we also conclude that the potential to fulfill both these functions may have been limited by the lack of time in the workshop to fully practice their advocacy (using approaches such as role play may have helped); also the form and content of the supporting information we provided may not have been sufficient to meet their needs.

6. The stories travelled well across communities.

The conclusion is that digital stories allow stories to travel well between communities. The original storyteller does not need to be physically present, but the intimacy of this particular form ensures that the essence of his or her persona is still very much present on film.

A further conclusion is that the digital stories travel best to new communities as a suite of stories. This allows some interconnections between people to be shown in the stories and so the suite can speak on the level of community as well as on the level of the individual. We found that the local context of the stories did have a positive impact on two of our Chew Magna audiences (Chew-greens and Chew-65+) by creating a sense of pride and interest in their community and what had been achieved there. We conclude however that this was not as significant as other factors, such as the age group or life stage of the audience. In particular, where participants knew storytellers, the effect was positive. We cannot however draw firm conclusions about this, as only five participants from the Chew Magna groups knew the storytellers.

Our inter-community work showed that whilst audiences were keen to point out the differences between their own community and that of the storytellers, this did not inhibit the potential for the research to have impact. For example, it seemed important to our outside environmental group (Wilts-PGT) to see other communities taking action, to know that they were not alone. For some in the Wilts-PGT group, the idealisation of the Chew Magna community prompted an inquiry into their own lifestyle and life choices. Thus the perceived differences between communities were helpful as a conversation starter and did not seem to present a barrier to acceptance of the stories.

Overall, we conclude that local context was not a key variable in this research, with credibility of the storyteller arising more from their perceived authenticity and believability in the story rather than the role they play in the local community.

7. **The intervention indicated some potential for pro-environmental storytelling to self-replicate and that other forms might also be effective.**

This intervention did not test the difference between digital storytelling and other forms of story (e.g. oral or written). There was evidence in this intervention that storytelling in general is an attractive and universally appreciated form of communication. We can conclude there was a readiness and appreciation for stories within the communities we engaged and that quite possibly other forms of storytelling might also work well.

Related to this there was some evidence of storytelling being adopted by some participants suggesting that storytelling can stimulate more storytelling. The digital storytelling process itself was being replicated in one community (Wilts-greens) and storytelling in a different form was adopted in a different community (Wilts-PGT) without the involvement of the research team. We conclude from this that there is an appetite for storytelling, and that there is potential for the process to become self-replicating across other community groups. We will return to this point when considering how our intervention might be scaled-up.

8. **The intervention indicated some signs of contributing to the process of community building and the strengthening of social ties.**

Our findings indicate the potential of this process to not only stimulate individual advocacy and action, but also to stimulate community pride and strengthen community ties. The suite of stories stimulated community focused conversations in five out of six audience groups. Some participants (in Soms-mothers) were stimulated enough by the process to take immediate action at a community level, and others left the second workshop considering ideas for collective action in the future. For the host community, the stories served to reinforce a strong, pre-existing sense of local pride. The creation of at least one new social tie (in Chew-65+) and the expressed desire to meet again as a group (Soms-mothers) suggest this process contributed to the strengthening of collective ties, although the enduring consequences were impossible to assess over just two workshops.

There was only one audience group where conversations about the community did not feature at all, and that was the Chew-teens. Our conclusion was, based on their comments, that community role models were largely absent for this age group, having been replaced by celebrity role models in modern culture.

9. **The family setting was identified as a key site of negotiation on pro-environmental issues. For some advocacy in the home was positively influenced by participation in the research.**

An unexpected finding in the research was that the family was a key site of negotiation when it came to adopting pro-environmental change. When planning or discussing pro-environmental behaviour, several participants referred to the different attitudes and approaches within their families as a potential barrier. And when it came to reporting on changes made, many participants referred to how relationships at home had played a part in ultimate actions. The intervention showed the potential to support and stimulate advocacy and negotiation in the home - with varying degrees of success. Isabella (Story A3), for example, reported being now more involved in discussing pro-environmental decisions with her partner as a result of taking part in the research. This unexpected consequence went alongside other participants reports that different views within their families had impeded their attempted pro-environmental actions (e.g. in Soms-mothers). We conclude that advocacy in the home was influenced by this intervention and that this could be an important area to explore further. We conclude also that advocacy in general, is an equally valid form of pro-environmental action alongside other, more direct, forms of action.

10. **Unexpected consequences/findings.**

There were a number of further unexpected consequences from the research that we describe in this last conclusion.

All of the research team were impacted by working with the digital stories over the course of the research project. For the core research team – all in the 40-50 age-group - this impact is hard to describe. It has not been accompanied by clearly attributable actions and is more at the level of influence described in conclusion 1. Yes, one of the team can say she never walks by the local allotment without thinking of Keith, or another has reported subsequent involvement in a community energy project where she described Nick's achievements in Chew Magna. These examples relate **influence** rather than direct stimulation of that action. On the other hand Lisa (from Storyworks) has adopted a number of new pro-environmental behaviours that she directly attributed to her experience of working with the storytellers (e.g. applying for an allotment like Keith and batch cooking and freezing food, like Pat in her story). This might suggest the potential for people in their 20's and 30's to be influenced by the process – perhaps at this lifestage they have more time to

act than the young mothers, and more opportunity and autonomy to make lifestyle decisions than the young teens. However given that Lisa's engagement with the stories and the storytellers was much deeper than other participants we caution against drawing that conclusion. But the reflections of the research team do suggest that the degree of exposure to the stories might in some way relate to the extent of influence and action.

A further unexpected consequence of the research was how the process inadvertently allowed other needs and questions to be met. For example, the workshops met a need for social interaction expressed by members of the Chew-65+ group. It also supported some participants in that group to get information on questions of concern. Thus, the process was of personal value to participants, even though this was hard to measure and not all the enduring consequences could be assessed within the short timeframe of this project.

Finally, because of our emergent research methodology that was coupled with a detailed and reflective approach to analysis, the research has generated not only a range of findings against our original questions, but also a set of new lines of inquiry that could be further explored. These, together with our illustrations of how inter-generational effects might enable or inhibit effective pro-environmental advocacy, and our insights into the social processes that might enable pro-environmental learning at a community level, were discussed earlier. These findings form part of the rich picture painted by the research. They are not unexpected consequences, rather they are emergent findings that are a facet of our approach and that could not have been predicted at the start of the research.

5.4 Summary of new questions and lines of inquiry

As with any good action research the inquiry has raised more questions than answers. The questions listed below are drawn largely from the findings already discussed in Chapter 4 and summarise some of the new questions and lines of inquiry that emerged from this research. They are loosely grouped under headings though many questions relate to several headings.

Questions about the stories and effectiveness:

- Might the creation of digital story suites 'matching' to more audience groups (in terms of age, demographic etc) be a way to help increase the effectiveness of the stories across a wider section of the population?
- Might stories featuring more inter-generational aspects have been even more effective? In particular might the creation of family situated or grandparent/grandchild stories have increased the reach and appeal of the stories?
- In what other ways might the stories travel? Could they travel without the workshops?
- Might more prolonged and repeated exposure to the stories increase their impact over time?

Questions about audiences and extending reach:

- How well might the digital stories have worked with audiences who were less engaged or less aligned with pro-environmental agendas?
- Might we have framed our research workshops or convened them differently so as to increase their reach?
- Might working in multi-generational groups have worked more effectively to address some of the 'inter-generational' myopia that we found is hindering older advocates from reaching out across the generations?

Questions about the process:

- Might having clearer information available to support participants' pro-environmental actions helped to extend the impact of the process? If so, what form should such information take?
- Is there scope for this process to be developed by focussing more on 'cascading' and amplifying pro-environmental advocacy by taking it into

new settings in workplaces, families and communities and stimulating new stories to be told there?

- What is the relationship between individual confidence and collective confidence to act? How might the social processes that were at work in this pilot be further understood and enhanced?

Questions about increasing inter- and intra- community impact:

- The pilot showed some potential to support those in public and influential roles to integrate personal pro-environmental interests more effectively into their public lives. Might targeting 'key influencers' with an intervention like this increase its possible impact?
- Might working more connectively in communities have led to more significant outcomes? In particular how might communities be supported to do much of what this research did by themselves? What would this require in terms of finding those key community groups and supporting them?
- How might communities be better equipped to start telling, gathering and publishing their own stories? What skills do they require?
- Might the lack of connection of the teenagers to their local stories and storytellers suggest a need to cultivate community role-models and storytellers for this group? If so, who might such role models be?

Questions about pro-environmental behaviour change:

- Might we re-frame what we were doing as creating spaces for pro-environmental learning rather than change? If so, what role might such spaces play in terms of stimulating and accelerating pro-environmental change?
- Is the pro-environmental learning space created here particularly appropriate for those less 'expert' or less confident in pro-environmental issues? What is the relationship between self-efficacy and gender and age?
- Might a dynamic reading of Defra's segmentation model be helpful in finding new pathways to accelerated pro-environmental change as well as helping avoid complacency in those segments considered to be already 'pro-environmental'?

- Might the social learning occurring in action research groups have some potential to help unlock some such ‘high mobility’ pathways? If so, how might this work?

5.5 Implications and recommendations

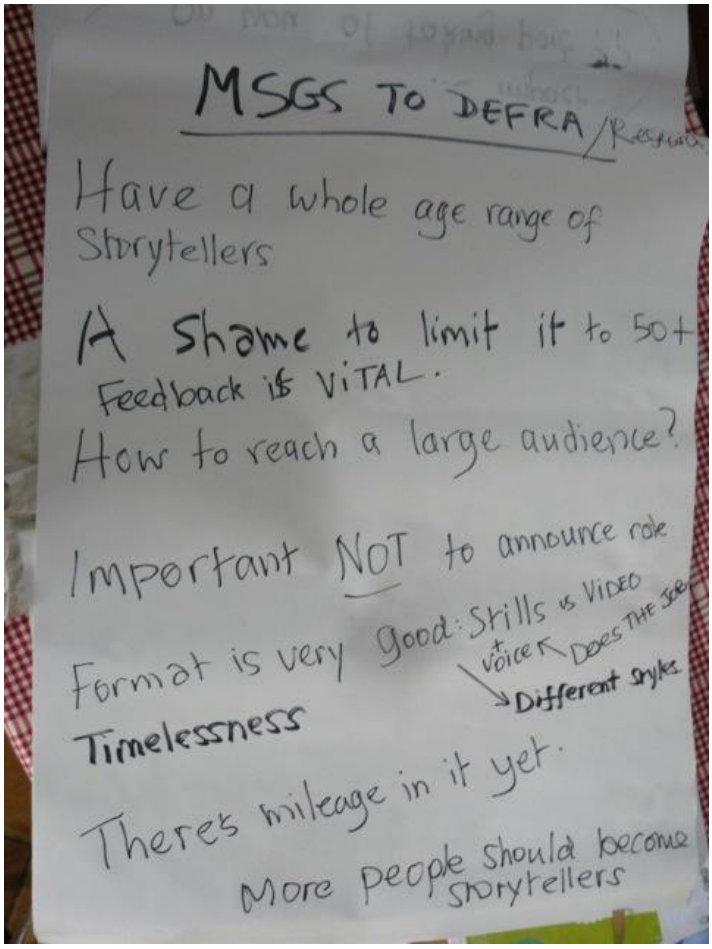

Figure 5.1 Reflections and recommendations from the storytellers at their final workshop

In this final section we consider the implications of what we have presented and make a number of recommendations. We direct our implications primarily in Section 5.5.1 at policy makers and community groups where we make recommendations for scale-up and replication; and in Section 5.5.2 we discuss implications directed at the research community and make recommendations for further research.

5.5.1 Recommendations for scale-up and replication

Facilitate a process of ‘cascading advocacy’ through storytelling.

We have drawn some conclusions about the effectiveness of digital storytelling, combined with an action research process as an approach; yet there are clear cost and resource implications about rolling this approach out in the form we have used here.

We suggest that these challenges can be addressed by equipping and enabling local communities to tell and propagate their own pro-environmental stories (digital and/or otherwise), and by offering them flexible support to do so. Certain aspects of the action research process would be redeployed, but without the need for so much central input and expert facilitation (more of a 'light touch' approach).

We describe this as facilitating a process of **'cascading advocacy'** within and between local communities, where the decision making power and the storymaking tools and exercises are largely handed over to the participating communities.

These bullet points provide the rationale behind this approach:

- The intention is to stimulate further stories to emerge as the process gets embedded in a local community and rolls out to more audience groups.
- The process has the further potential to connect up different storytelling communities to share their stories leading to the creation of a 'storybank'.
- In this way, advocacy is cascading both within and across communities.

This idea of cascading advocacy has implications for all stages of the process, from initial audience recruitment to the materials required to support communities in this way, which we detail below.

1. **Strategic approach to selection of communities & audience groups**

- More time/resource should be allowed for a strategic approach to selecting and engaging with participating communities.
- Community and audience profiles could be mapped against the factors suggested in conclusion 3 to identify 'receptive' groups who might benefit most from this approach.
- Audiences representing age-groups and life-stages not covered by this research should also be considered.
- It is important to identify suitable audience convenors to work with.
- This could include local 'Community Connectors or 'Green Champions' who have a strong network of local relationships, and the ability to convene a group around the environmental agenda.

2. **Identify those with influence in public arena**
    - It might be appropriate to work with pre-existing groups, but it might also be possible to utilise the power and influence of local individuals to convene new groups.
    - Individuals in positions of public influence (such as Sue in story A2) may be helpful in this process.
    - Such individuals could form a new group (e.g. a group of local head teachers) where they might explore together how the process of narrative-led pro-environmental behaviour change and advocacy might be cascaded through their immediate sphere of influence and further afield.
3. **Increase diversity of participating communities**
    - The diversity of the communities that contribute to the story-bank should be increased.
    - This will increase the potential for cross-community learning.
4. **Develop a suite of stories, including inter-generational aspects**
    - The communities would be offered suggestions on suitable storytellers/storylines, drawn from our conclusions but leaving the final choice open to them.
    - We would strongly recommend including the stories of older people within the story suite.
    - Adding some inter-generational dimensions would also be encouraged.
    - Showing interaction between the generations, and/or including stories from different age groups could achieve this.
    - There is also scope to convene cross-generational audiences, to help bridge the generational divide and to potentially allow community role models to emerge.
5. **Employ a variety of storytelling approaches**
    - Digital storytelling may not be appropriate/cost-effective for all communities.
    - Where appropriate, we could run workshops to ‘train the trainer’ to produce digital stories and then train others in the community.
    - Where not appropriate, communities could be supported to develop and communicate stories in whatever way works best for them. Stories could be created using video, animation or digital storymaking tools (for those technically versed). However, just as important are more traditional approaches to sharing stories – e.g. storytelling circles and

oral storytelling. Communities could then choose appropriate channels to spread these stories – several of our audiences suggested the use of local community radio, stories in the local press and travelling storytelling road shows and events.

6. **Provide a resource base of information to support the process**

- The process should be supported by clear factual information, to help those primed by the research to now make good choices.
- This information should be relevant to the stories and the local context, and should be accessible to all age groups.
- More time should be built into the process for participants to share information about their choices, enabling peer-to-peer learning to take place.

7. **Support participants to practice their advocacy**

- Time could be built into the workshops to support participants to practice their environmental advocacy.
- They could be actively encouraged to experiment with advocating to their family, their friends, their grandchildren and then supported in a peer learning environment to discuss how that went.

8. **Offer a flexible package of support to participating communities**

- Communities should be offered a range of ideas, and different levels of support with facilitation and storymaking, from which to select.
- This could comprise a core package, which could be explored and adapted according to their needs/level of current engagement with pro-environmental practices.
- Elements of this package could include: story creation skills, workshop designs, guides and supporting instruments, facilitation skills support, supplementary information packs.

5.5.2 Implications/recommendations for further research/pilot projects

We suggest here some areas of interest that arose through the research but which we were not able to fully explore in this project. These could form the basis of some interesting further research projects or next steps that would build directly on the work we have presented here:

1. **Develop theoretical findings.**

Explore the connection between the findings in this report and the existing body of literature on:

- The Defra segmentation model: how might our research integrate with and enhance the existing segmentation research?
- The wider substantive field of behaviour change research within Defra and beyond (e.g. the Defra motivations research, theories of planned action, theories relating to the value-action gap etc).
- Action research and ABR: This work presents an action research approach within the context of a qualitative research commissioning framework and as such breaks new ground in a number of ways. Methodologically the complementarity of the approaches could usefully be explored.

2. Conduct follow-up to strengthen/confirm findings

Follow up with some audience groups and storytellers from this project to help assess the durability and lasting effects of the intervention. Additionally we could inquire further with these participants about what information may be helpful to accompany the process, and in what form.

3. Package the existing stories and approach

Explore the best platform (online, digital CD) for the existing stories and create a storybank from the eight stories from this project. Develop a core package of action research processes and a resource pack to accompany these in a way that others could attempt to take the approach further. Build into this the possibility for knowledge sharing and the addition of new stories.

4. Develop new 'partners' for roll-out and going to scale

Explore pathways to scale by adopting a 'partnership approach'. We suggest that packaging some form of our workshops and stories and finding existing community groups to take it on could be an interesting way forward. Some feasibility research could explore what communities might be suitable as partners and what they would find beneficial as a support package. A range of geographical and issues-based communities could be approached directly. We suggest the feasibility explore broadly a pro-active, 'partnership' approach whereby we might work with and form relationships with intermediate third sector bodies or agencies that have access to communities through their work (e.g. energy agencies, Age Concern, boy Scouts or the Transition Town movement) to run a pilot of 'cascaded storytelling' for the environment (see next point).

5. Run a 'cascaded storytelling' pilot

This would be a series of action research workshops that support a group of participants coming forward from those potential communities or organisations

identified in the previous point. This group would work on tailoring and deploying the storybank and action research process through their organisations or communities and would then come together to reflect on the learning together. We suggest up to 12 organisations or communities might be represented and effectively supported through a process like this and that a high reach could be achieved in this way. Participants would be learning to deliver, tailor and e-define the action research process package, and to develop its potential for scale through doing this. In particular, the pilot program would also be designed to encourage collaborations and story-exchange across those groups participating in the pilot program.

Within this 'cascaded storytelling' pilot would be the potential to test and improve aspects of the existing package for those participants who choose to take that approach. For example, we could imagine experimenting with the following adjustments to the workshop format:

- Providing more time and support for audience participants, possibly over more workshops, to develop and practice their advocacy (through storytelling and other means) and to set action plans for advocating to their families and communities.
- Allowing more time in the workshops for information sharing between participants, and encouraging social learning to take place.

6. Run a 'key influencer pilot'

In addition to the pilot described above, we suggest also a 'key influencer pilot' building on points 1 and 2 in our discussion about the implications for scale-up and replication. This would involve seeking out and convening specific audience groups who we identify as having the potential to be particularly influenced by this kind of approach and crucially to be influential within their community or work spheres. Two audiences to start with might be:

- A community-situated or cross-community group comprising community/environmentally focused young mothers at a similar life-stage to Soms-mothers.
- A cross-community group of public practitioners who share a similar, public role of influence – for example – primary school head teachers.

Part of this pilot could be oriented around exploring other potential 'key influencer/influencee' audience groups that were not covered by this research – see for example our points about older teens and young adults in the earlier discussion.

We have concluded this report by drawing out the implications of what we have presented and by looking at how this process could be adjusted and adapted to enable scale-up and replication. We have made suggestions where there may be gaps in our research, or areas of interest arising, which could be addressed through the commissioning of further research.

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Appendix A: Storytellers launch event poster

Have You a Story to Tell?
Please join us to launch a ground-breaking new research project
Thursday May 13th 7.30-9.00pm

Venue: Baptist Church Hall, Chew Magna Refreshments Provided

Are you 50 or older or know someone over 50 in this area who might be interested in taking part in an innovative research project?

We are a team from the University of Bath (calling ourselves *Lowcarbonworks*) interested in the different ways that people are choosing to lead their lives as our awareness is growing of climate change and diminishing planetary resources.

We are particularly interested in the stories people tell about their lives during these changing times.
In fact we believe that *everyone* has a story to tell.

There are 20 million 50 plus's in the population at the moment, so how this group chooses to live their lives is very important to what our future will look like.

We are interested in how the stories 50 plus's can tell might move or inspire others to change.

If you'd like to know more about this project then please join us for our launch event where we'll be showing films and explaining a little more about how we'll be working here in Chew Valley. There will also be tea and biscuits.

If you are interested in taking part in the project you will be able to register your interest on the night, or you can get in touch with Michelle at this email: [details deleted]

Logos etc added.

Appendix B: Target80 & Chew Valley audience poster

An invitation to everyone in the Chew Valley community

Do you enjoy a good story?

Would you like to take part in an action research project looking at how the stories of people over 50 might help society become more environmentally sustainable?

We are a team of researchers from the University of Bath and we would like to invite you to take part in an evening workshop in **Chew Magna Baptist Hall** on **Tuesday 9th November 2010,** from **7pm to 9pm.**

At this workshop you will view a set of short films, made by 8 local storytellers, and you will be invited to share your reactions to them, and discuss the possible environmental actions arising from them. There will be a follow up workshop in spring 2011. The workshops will be relaxed, enjoyable and thought-provoking.

Refreshments will be provided and workshops are free of charge.
Please feel free to register on the night or to find out more, please get in touch with **XXX administration info**

In partnership with Target80 [logo added]

Appendix C: Interactive Baselining/Defra Segmentation posters

Thinking
How do I feel about my current lifestyle and the environment?
Place 1 dot where you most agree

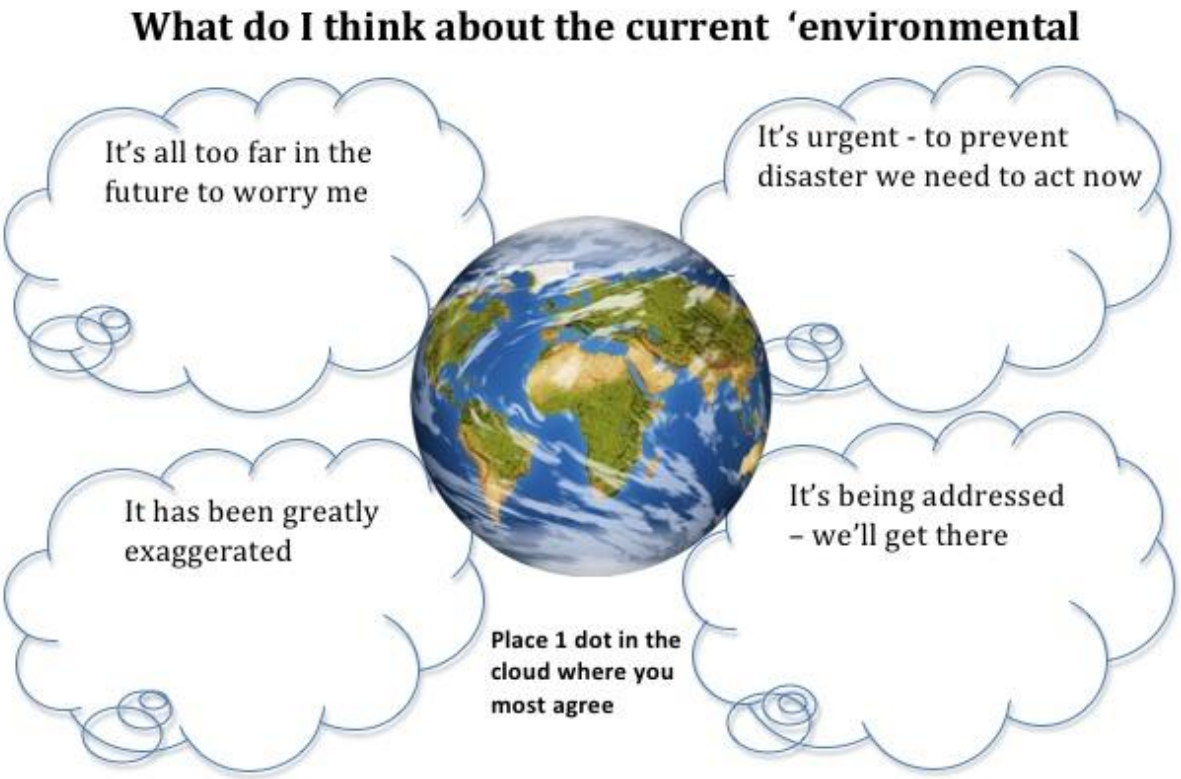
I could do a lot more

I could do a bit more

I don't know

I'm happy with what I do

Thinking


What do I think about the current 'environmental
It's all too far in the future to worry me
It's urgent - to prevent disaster we need to act now
It has been greatly exaggerated
It's being addressed – we'll get there
Place 1 dot in the cloud where you most agree

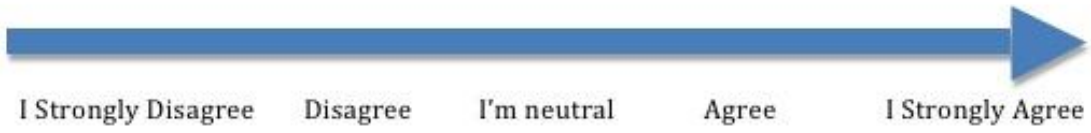
Talking

3 Questions

Place 1 dot on each scale....

Q1: I'd be embarrassed if friends thought my lifestyle was environmentally friendly

Q2: It's not worth me doing things to help the environment if others don't do the same



Q3: I talk about environmental issues with my friends/family/colleagues

Appendix D: Storybooklets extract

Story 1: Why change it? - Andy

Something you appreciated in the story?

Some part(s) you found yourself most relating to?

Anything to say about the storyteller?

Overall, anything more to say about the story?

Was storyteller(s) known to you (please circle) … (yes) (no)

Appendix E: Pledge Sheet (from Action Research diary)

Night of 1st Workshop – recorded inspiration/pledge/action		
Date:	**Gender (M/F):**	**Age:**

Below is a 'diary' to help you think and track how your thoughts, conversations and actions evolved in between the workshops. Please bring it back to Workshop 2.

Date	Record your thinking/talking/acting ideas here

Appendix F: Supporting information

Useful websites for further information:

- Home energy efficiency, including grants energy saving products, insulation and micro-generation: Energy Saving Trust: www.energysavingtrust.org.uk
- Renewable energy technologies: Centre for Alternative Technologies: http://www.cat.org.uk
- Water efficiency: Waterwise: www.waterwise.org.uk
- Recycling / composting etc: WRAP: www.wrap.org.uk/individuals and more detail on community composting: the Community Composting Network: www.communitycompost.org
- Healthy food and activity tips: change4life: www.nhs.uk/change4life
- General 'greener living' information: DirectGov: http://www.direct.gov.uk/en/Environmentandgreenerliving and Every Action Counts: www.capacity.org.uk/communityprojects
- Community environmental improvement: Global Action Plan: www.globalactionplan.org.uk
- Local environmental quality improvement (including eco-schools): Keep Britain Tidy: www.keepbritaintidy.org
- Support for community enterprises: Development Trusts Association: www.dta.org.uk
- Tree planting: Woodland Trust: www.woodlandtrust.org.uk Tree Council: www.treecouncil.org.uk
- Conservation volunteering / green gyms etc: BTCV: www2.btcv.org.uk

Local websites:

- Local Creative workshops (learn to sew, upholster, knit, repair furniture etc.): The Makery (Bath) www.themakeryonline.co.uk
- Bath & North East Somerset Council: www.bathnes.gov.uk

STORYTELLER'S TIPS

Keith's Tips

You need to spend at least a year to get something out of an allotment

Start by planting easy to grow crops e.g. potatoes, carrots, beetroot, runner beans

If you don't have much space grow tomatoes in pots and window boxes

People will often give you seeds at the allotment – buy your garden tools at car boot sales

A tip on watering: water well only when plants are young. Folio feeding is very effective for some veg (using organic fertiliser)

If you have gluts – freeze or sell!

Pat and Ian's Tips

You can get good advice on the sort of projects we've done on the internet, in books and magazines. But only you will know your individual needs

If you want to change your car note that published fuel consumption figures are always too high

You can reduce your emissions and your cost by learning to drive the car with soft use of the accelerator

We chose a hybrid because we were conscious of fuel use and unable to do without a car living in and working out of a village

You can pick up local bus timetables at your local post office, and your local council's website. A bus service is just about available 3-4 times a day. Bath is impossible by bus – we've tried it.

There is a local car scheme: Dial a Ride. It's more successful in the bigger villages but we are trying a lift share scheme

You can always start small with changes – the bucket in the shower can make sense. Or just put what you need in the kettle. And don't turn on your heating before October 1st.

Pat's Lucky Dip tips

I freeze the food mainly for convenience – but it saves not only time but gas and electricity if you use large containers to cook in.

Square or oblong containers stack better and you can wash and re-use them. Most supermarkets stock them in packs of 10

Good cuts of meat are skirting steak and chuck steak. Most butchers are very helpful

Use whatever you've got in the cupboard when cooking – use Google for recipes!

Helen's Tips

If you want to learn to sew or knit, start small. Sew on a button; take up a hem or stitch a seam that has come apart

Sewing is more useful to start with as a craft (rather than knitting or crochet)

You can pick up what you need in large department stores like John Lewis or dedicated stores. There's a good one in Keynsham

To mend a hole (e.g. with children's clothes) you can buy and appliqué patches to iron on or sew

You can stitch things beautifully to customise or make your clothes unique – especially children's clothes

Talk to parents or grandparents – they can show you how. Google it to learn more!

Nick's Tips

Domestic grants for home energy production have stopped and have been replaced with 'Feed-in Tariffs'. You can earn approximately 40p per Kwh generated

But schools, halls, churches (which are classed as community generators) can get a 'Low Carbon Building Programme' Phase 2 grant covering 50% of the cost.

This requires 50% match funding – our funding for the school came from energy company EDF, but other energy suppliers offer them too. The school gets an income of approximately 11p per Kwh generated.

Two local companies do solar energy installations:

Solar Sense – they did all the grant research and the application

Southern Solar

You can talk to them about domestic projects too and about solar water heating

There are mortgages you can get to fund the investment

The estimated payback on domestic Photovoltaic (PV) is 10 years. Ideally you would need a South/South West/South East facing roof

To start a school garden – get a garden club set up and involve children from the start

Get the PTA involved for fund raising (it's fairly low cost)

You can use the produce in the kitchen, or sell it (if it's ripe by the school holidays!)

Andy's Tips

Keep it and repair it – as a first principle

If it has to go think of 'Freecycle'

Or remove the usable parts e.g. plugs to become spares for other things

Place water butts under downpipes, and connect several butts together via tubing and connections

Your local council might sell water butts cheaper than DIY stores

Tim's tips

Visit your Local Authority web site (or LA Helpdesk) and apply for a grant you may get insulation for free now or at least very cheaply

Fit the maximum thickness of insulation that you are able within constraints of your home and good practice

Insulate pipework in roof void.

Consider having your cavity walls insulated and save even more money.

Appendix G: Self-efficacy questionnaire

Name:

Please take a moment to answer these brief questions. Don't think too hard about your response.

Score your responses 1-6

1. I can follow through on what I have pledged to do, even if my friends, family or neighbours might not do the same

1	2	3	4	5	6

2. I can change my behaviour even if I think that on a bigger scale it may not make a big difference

1	2	3	4	5	6

3. I can keep my behaviour change going even if this behaviour is not socially expected

1	2	3	4	5	6

4. I am confident I can keep a lifestyle change going even if friends or family disapprove

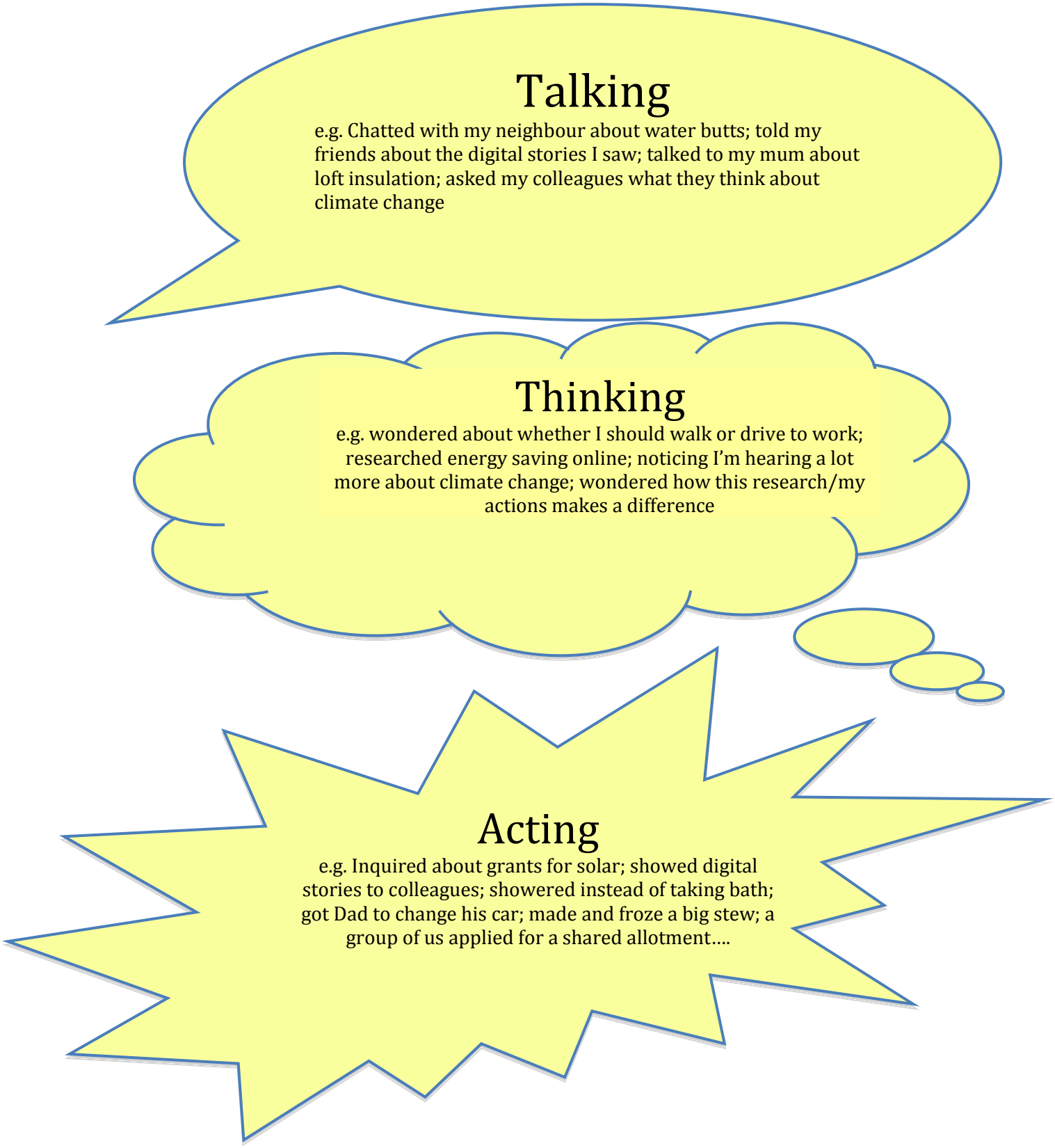
1	2	3	4	5	6

5. When I am confronted with a challenge in making a change to my lifestyle, I can usually think of several ways to tackle it

1	2	3	4	5	6

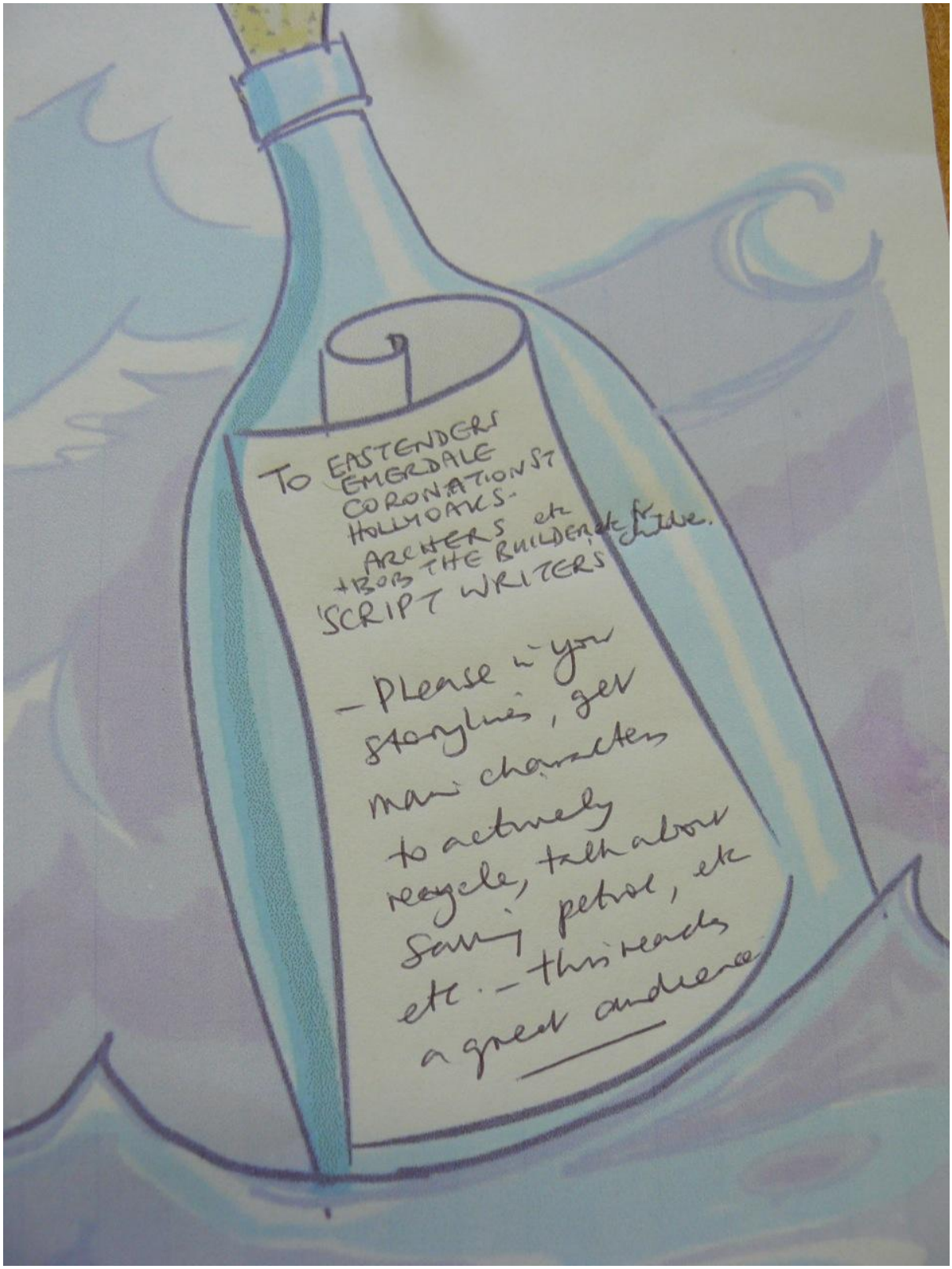
Many thanks!

Appendix H: Thinking/talking/acting motif from Action Research diary



Appendix I: Thinking/talking/acting poster

Appendix J: Message in a bottle motif



Appendix K: Self-efficacy Analysis

Analysis and Reporting: Anthony Curtis and Paul Pivcevic

1. Why explore self-efficacy? Because it's a predictive concept - the intention to change a habit, or adopt a new regime depends to some degree on a firm belief in one's capability to exercise control over that habit and to achieve stretching goals.

2. From an action research point of view the concept is dynamic; rather than representing a static capacity it stands for an on-going and dynamic process between a person's behaviour, their environment and inner qualities. Self-efficacy measures could therefore be used to feed a person's inquiry about their behaviour

3. Self-efficacy is not a mere individualistic construct. It can also be applied to groups, teams, or societies. Although self-efficacy has mainly been studied in the context of team sports, it could be seen to apply to groups we have worked with who regard themselves in some respects and in some configurations as a team with agreed goals

4. Methodology: the questionnaire we used was developed from the Generalized Self Efficacy Scale (Schwarzer, R., & Jerusalem, M. 1995). The authors claim that using this scale doesn't run contrary to Bandura's (1997) suggestion that self-efficacy as a concept should be applied to specific situations and behaviours. When it comes to the prediction of a particular behaviour, specific measures of self-efficacy are regarded as superior, because they constitute a behavioural match. But in our case where we are addressing people changing towards a more pro-environmental lifestyle, we are addressing a more global construct like health, quality of life, successful ageing, overall job satisfaction etc. implying a complex set of behaviours and motivations. Schwarzer reports that general self-efficacy can be used to explain a complex set of behaviours (e.g., adherence to health regime for people with diabetes).

5. All items in the questionnaire were constructed by explicitly following Bandura's social cognitive theory (Bandura, 1997; Schwarzer, 1995, 2011). The theory argues for a certain **semantic structure** for self–efficacy questionnaire items. First, the subject should be "I" since the aim is to assess an individual's subjective belief. An item should contain verbs like "can", or "be able to", making a link to personal competence. Further, items have to contain a **barrier** since there is no use in asking for self–efficacy expectancies for actions that are not difficult to perform or that might just be routine. Explicitly mentioning a barrier implies a certain degree of difficulty.

Results by group

Group	Workshop 1 (averaged scores) range 1-6	Workshop 2 (averaged scores) range 1-6
Chew-greens	4.3	
Wilts-greens	4.68	5.01
Chew-65+	4.5	4.46
Soms-mothers	3.87	4.96
Wilts-PGT	5.1	5.4
Chew-teens	4.06	4.1

Analysis – collective self-efficacy

6. Bandura suggests it is possible to measure collective efficacy by aggregating individual members self-scoring of their personal capabilities – but of the functions they perform as a

group. How well this aggregate score is a predictor of performance depends on the 'degree of interdependent effort required to achieve desired results'. Bandura contrasts the example of a gymnastics team and a football team. We had hoped in our research to explore collective action but since not much collective activity was stimulated through the research, we don't have a context in which there are sufficient interdependencies to really make aggregating the scores a credible measure of collective efficacy. We can of course say that there is an improvement in scores in two groups in particular: Soms-mothers and Wilts-Greens and to an extent Wilts-PGT.

7. The researcher collated individual results and subjected to a 'Wilcoxon statistical test' to examine any statistically significant differences between two independent sets of data. This test was used for differences both within group differences and between group differences. A comparison of between group difference (i.e. first and second workshop scores) yielded no **overall** significant differences ($p>0.05$). However, intra group analyses of individual participants scores showed that four participants scored significantly higher in the second workshop results compared with the first workshop results ($p<0.05$): These were 2 participants from Chew-65+, one from Soms-mothers and one from Wilts-Greens.

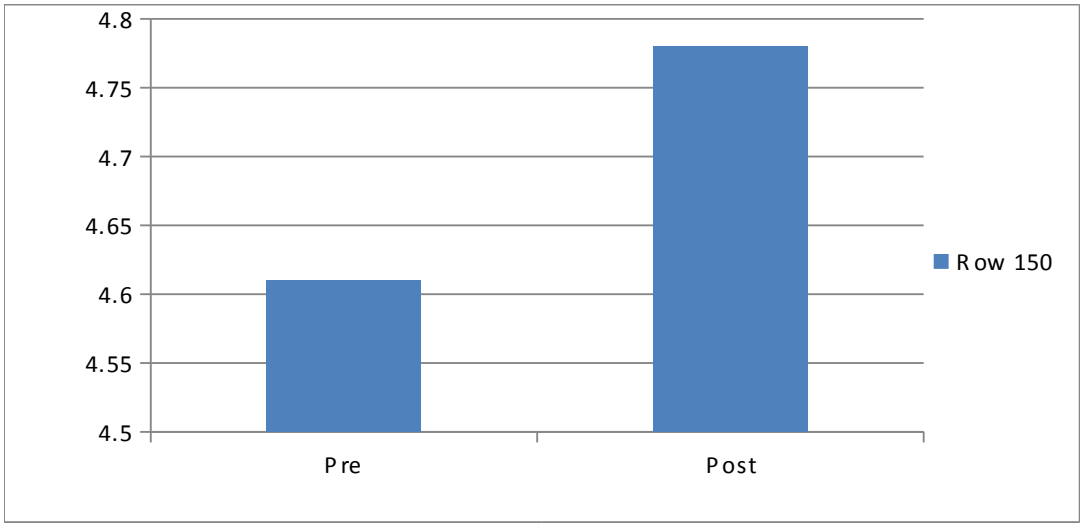


Figure 1 Overall mean self-efficacy scores for first and second workshops

8. Possible reasons for no significant change include:

   - Self-efficacy shifts take time.
   - There was already a 'ceiling' effect by the first workshop – self efficacy may already have been high amongst these self selecting groups who were signed up to the purpose of the workshop.
   - The Likert scale was only 1-6 – perhaps an 11-point scale (or 100-point scale used by Bandura) might have had greater sensitivity and specificity.
   - There might be a so-called 'sleeper' effect namely, there is a significant difference, i.e. it just needs more time to manifest.

9. It would be of interest to cycle this data back into another round of group inquiry to explore what meaning people make of it; whether it resonates with their perceived level of agency around making further pro-environmental behaviour changes, and whether the barriers the self efficacy questions name are in fact the key factors influencing change. While this would enrich the inquiry it would also help sharpen the instrument for use in future studies.

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