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Evaluation and Program Planning

journal homepage: www.elsevier.com/locate/evalprogplan

Failing better: The stochastic art of evaluating community-led environmental action programs

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ARTICLE INFO

Article history:

Received 11 February 2015

Received in revised form 3 November 2016

Accepted 6 November 2016

Available online 9 November 2016

Keywords:

Community-led

Climate change

Failure

Program evaluation

Stochastic art

Sustainable communities

ABSTRACT

This article provides insights into the evaluation of a government-funded action for climate change program. The UK-based program aimed to reduce CO₂ emissions and encourage behavioral change through community-led environmental projects. It, thus, employed six community development facilitators, with expertise in environmental issues. These facilitators supported and learnt from 18 community groups over an 18-month period. The paper explores the narratives of the six professional facilitators. These facilitators discuss their experiences of supporting community groups. They also explain their contribution to the wider evaluation of the community-led projects. This paper reflects on the facilitator experience of the program's outcome-led evaluation process. In turn, it also explores how the groups they supported experienced the process. The facilitator's narratives reveal that often community-group objectives did not align with predefined outcomes established through theory of change or logic model methodologies, which had been devised in attempt to align to program funder aims. Assisting community action emerges in this inquiry as a stochastic art that requires funder and facilitator willingness to experiment and openness to the possibilities of learning from failure. Drawing on in-depth accounts, the article illustrates that a reflexive, interpretive evaluation approach can enhance learning opportunities and provides funders with more trustworthy representations of community-led initiatives. Yet, it also addresses why such an approach remains marginal within policy circles.

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1. Introduction

Recent years have witnessed an intensification of community action on environmental challenges (Forrest & Wiek, 2014; Seyfang & Smith, 2007). Such civic projects include the establishment of community land trusts, local currencies, co-housing schemes and the well-known transition town movement. A localist discourse in the UK validates these schemes and leads successive governments to champion the potential of community-led initiatives (Catney et al., 2014). Furthermore, as governments strive to meet targets for carbon emission reduction, the amount of state-led (Peters, Fudge and Sinclair, 2010) and state-community partnerships encouraging action on climate change have increased (Reeves, Lemon and Cook, 2014). Civic participation in sustainable

development is a neglected and arguably underexploited field (Seyfang & Smith, 2007). Nevertheless, there has been extensive debate about the role that such initiatives can or should contribute to transitions towards sustainable development (Aiken, 2014; Catney et al., 2014; Middlemiss 2011; Reeves et al., 2014).

This paper focuses upon an evaluation of a UK-based government-funded program that aimed to nurture local action for climate change through partnership with community groups. These groups initiated projects that focused upon matters including energy, local food growing, bicycling and tree planting. Increasingly, communities are called upon to authenticate their efforts, by providing evidence of effectiveness (Adams & Dickinson, 2010; Bakken, Núñez, and Couture, 2014; Benjamin, 2008). However, very little consideration has been given to how groups cope with the demands for evidence placed upon them (Carman, 2007). Moreover, little is known about how project assessments contribute to tackling wider social and environmental issues. Specifically, questions remain concerning how findings are transferable to other contexts and how they improve decision-

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making at a local level, as well as their effect on policy and practice (Sridharan & De Silva, 2010). There is, thus, considerable scope for studies that offer insights into evaluation processes for community-led environmental action.

This progressive qualitative research study provides in-depth insights into the experiences of facilitators, employed through a community action for climate change initiative. This article responds to current knowledge gaps regarding how communities experience the evaluation of participatory environmental projects. It does so by exploring how facilitators and the groups they interacted with negotiate such processes. Insights into how facilitators and groups perceive evaluation praxis also make this study relevant to the broader field of monitoring and evaluation. The paper begins with a brief background to program evaluation, which contextualizes the study. It then presents the results of interviews with six facilitators, who acted as intermediaries and action researchers during the program. The narratives of four of these individuals are presented to provide ‘thick descriptions’ (Geertz 1973) of their experiences. The study critically reviews the training of community facilitators in evaluation techniques, as well as the consequences of misalignment between program level and community goals. The article concludes with implications for evaluators and planners, as well as for policy makers and academics interested in community-led sustainability initiatives. Specifically, the paper seeks to be relevant to policy makers, by highlighting the significance of thinking through what appropriate evaluation methods for programs might be.

2. Literature review and conceptual framework

Evaluation approaches for community-led environmental projects typically do not differ from those employed within broader community development programs. Most often, they include theory-driven evaluation, which requires the construction of a logic model or a theory of change (Nicholls, Lawlor, Neitzert, Goodspeed, & Cupitt, 2012), as well as more recently, more constructivist approaches to evaluation. The latter section of this literature review briefly introduces these concepts to provide a framework for exploring an evaluation of a community action program.

The evaluation of community action on sustainability problems is an under theorized field, populated by few empirical studies (Forrest & Wiek, 2014; Pollock & Whitelaw, 2005). Community-led environmental schemes often incorporate elements of social innovation (Scott-Cato & Hillier, 2010). Such social innovations are characterized by uncertainty and unpredictability. Consequently, their effects can be ephemeral and difficult to trace (Rey, Tremblay, & Brousselle, 2013). Determining meaningful project outcomes is also challenging given that there is no clear route towards environmental sustainability (Stables, 2004).

Currently little evidence supports claims that community-led initiatives lead to benefits such as widespread behavior change. For example, Moloney, Horne and Fien (2010) use this observation as a starting point for arguing that more evaluations of community-led sustainability programs are needed in order to address their effects. Their paper analyses a database of 100 Australian behavior change programs for energy efficiency. They question the current nature of behavior change initiatives, drawing attention to issues including, how behavior and social practices are framed; barriers and constraints to change and approaches that are deemed to empower participants. Furthermore, Middlemiss (2011) argues that there is little evidence to support the argument that such programs, in their current state, lead to the adoption of more sustainable lifestyles. Middlemiss (2011) employed a technique known as ‘realistic evaluation’, developed by Pawson and Tilley (1997). It is a technique that is appreciative of intervention context

and community mechanisms in processes of social change. Using this technique, she conducted five case studies of community-based programs, constructed through interviews with community practitioners and participants. More broadly, several authors have critiqued the notion of community as a mode of transition (Aiken, 2014), while Burch (2010) has noted the barriers to local-level action on climate change. Further, Creamer (2014) and Peters et al. (2010) have questioned whether State and local government programs effectively engage diverse populations to enable widespread action on climate change. Catney et al. (2014) have also expressed concerns that a shift towards a localist discourse represents “staking environmental policy success on the ability of local civil society to fill the gap left after state retrenchment [which] runs the risk of no activity at all” (p. 715).

There has been longstanding assessment of community initiatives in academic fields including health sciences, education and applied psychology. Sustainability programs, such as that explored here, often draw upon these fields, for theoretical frameworks for conducting evaluations. Literature within the field of program evaluation has grown exponentially since the 1950s (Zanakis, Mandakovic, Gupta, Sahay, & Hong, 1995). A post-positivist paradigm currently dominates the field, where for example, organizations are encouraged to construct a logic model or a theory of change for evaluating their projects (Blamey & Mackenzie, 2007; Brousselle & Champagne, 2011; McLaughlin & Jordan, 1999; Weiss, 2000). Theory-driven evaluation has played a significant role in moving the field beyond being steered by methods alone (Chen, 1994) and from an early stage, stakeholder involvement in this process has been widely endorsed (Taut, 2008).

Recently, the field of evaluation has evolved towards a fourth generation by adopting a constructivist approach, the aim of which is consensus through dialogue, rather than attempting to reach discoverable truths (Fishman, 1992; Guba & Lincoln, 1989). This has led to a greater focus on nurturing learning cultures amongst community agencies (Botcheva et al., 2002; Botcheva, White, & Huffman, 2002), as well as to the potentials of narrative analysis (Costantino & Greene, 2003). In a similar vein, evaluators have begun to discuss systems thinking (Cabrera, Colosi and Libdell, 2008) in a steer away from “managing complexity and uncertainty” in evaluation (Kapsali, 2011; p. 396). Systems thinking can be thought of not as an evaluation approach, but as a perspective that can transform any evaluation approach (Cabrera et al., 2008). Cabrera et al. (2008) propose that it is possible to apply four roles to ‘existing evaluative knowledge with transformative results’ (p. 299). They further their proposition of the usefulness of systems thinking by suggesting that reframing perceived problems, via this approach, may lead to solutions previously unthought-of. They suggest that ‘evaluating any program would include: defining what the program is and is not; identifying the components (parts) of the program; and recognition of the relationships among the parts and between each part and the program as a whole’ (p. 302).

This turn occurs at the same moment when authors in the field of community-led action for sustainability increasingly consider social learning as a significant program outcome (Bradbury & Middlemiss, 2014; Forrest & Weik, 2014). Bradbury (2001) states that “organizational development-oriented action research can contribute to the fostering of sustainable development by facilitating dialogue in spaces that allow for a multiplicity of perspectives” (p. 312). Further, according to Cabrera et al. (2008) participatory methods, such as participatory action research “recognize both the importance of taking multiple perspectives to better inform the evaluation design”. They also argue that participatory action research can help to ensure that evaluators have a “comprehensive understanding” (p. 302) of a program and its participants. The positions “participatory, collaborative, cooperative, or empowerment” are increasingly aspired to within

program evaluation. These terms may have different meanings, yet Patton (2002) argues that these progressive ideals all “share a commitment to involving the people in the setting being studied as co-inquirers, at least to some important extent, though the degree and nature of involvement vary widely” (p. 185).

Patton (2002) also argues that more progressive evaluation involves qualitative approaches, which can be particularly appropriate for capturing “developmental dynamics”. To this end, he refers to “developmental applications”, including action research, action learning, and reflective practice and learning organizations. Patton (2002) states that the qualitative methods and case study analysis, used within such research, focus upon process rather than outcomes. As such, they “yield insights and findings that change practice” (p. 180) and also enable people to think systemically about their practice. The focus of more progressive developmental evaluation is, thus, ongoing learning for internal improvement, rather than summation reporting for “external audiences or accountability” (p. 180).

The merits and drawbacks of the vast range of program evaluation methodologies have been widely debated. Authors have noted difficulties encountered within evaluation processes associated with the differing values and priorities of coordinators and evaluators (Cowen, 1978). Taut and Alkin (2003) argue that there can be a lack of trust between providers and evaluators, which may contribute to evaluation anxiety (Donaldson, Gooler, & Scriven, 2002). Typically, there is also a need for evaluation capacity building amongst stakeholders (Taut, 2007). For instance, Carman (2010), Chapman (2014), Cousins, Goh, Elliott, Aubry and Gilbert (2014) and Botcheva et al. (2002) have noted that communities often lack the resources, skills, time and budgets needed for systematic evaluation implementation. Others have pointed to difficulties associated with monitoring efforts being under-incentivized (Forss, Kruse, Taut, & Tenden, 2006).

A useful additional theoretical framework for exploring beyond the constructs of conventional evaluation approaches can be drawn from critical theory and cultural studies. These fields provide insights that enable the reframing of evaluations to focus upon the experimental, exploratory opportunities within endeavors. How individuals perceive project failure is arguably central to thinking about evaluation in these terms. For example, in the field of critical pedagogy, hooks (2003) argues that accepting failure is central to democratic learning processes. She argues that democratic classrooms enable learners to “experience their vulnerability among a community of learners who will dare to hold them up should they falter or fail when triggered by past scenarios of shame – a community that will constantly give recognition and respect” (p. 103).

Of particular interest here is Crawford's (2010) discussion of failure in relation to the praxis of stochastic art. Crawford (2010) draws upon ancient Greek philosophy and adopts a constructivist approach to argue that professions that involve “fixing” and “tending”, rather than creating, are stochastic arts. Examples would include being a doctor or a mechanic. As stochastic artists, he argues, doctors and mechanics fix and tend things and beings that they cannot fully control. For example, a mechanic is required to fix cars that have been built by vehicle manufacturers. Crawford (2010) argues that because “the things they fix are not of their own making” mechanics and doctors, as stochastic artists, never know the things and beings that they tend to “in a comprehensive or absolute way” (p. 81). Crawford (2010) argues that stochastic artists, such as doctors and mechanics, experience failure on a daily basis. This is because they never ‘attain’ their object, complete health. Yet, these individuals accept the reality of regular ‘failure’ in this regard. Consequently, they also accept that it is not possible to ensure absolute wellbeing of a vehicle, or of a person, given the vast range of other factors, concerned with manufacturing and

maintenance, which interfere with their efforts to do so. Consequently, they aspire to an alternative goal; in treating patients and vehicles, they promote the health of these objects and beings, as far as it is possible to do so.

There is much to be gained analytically by adding the facilitation of community development to the list of stochastic artistic practices. Understanding community facilitation as a stochastic art may also prove empowering for practitioners and communities. The concept can be utilized to underpin the avocation for the developmental evaluation (Patton, 2002) of complex adaptive systems, such as those embedded in the program discussed here. Innes and Booher (1999) argue that the effective functioning of complex adaptive systems, depend upon individuals being informed and having the ability to function autonomously. Viewing community facilitation as a stochastic art, that recognizes participants as autonomous beings, may enable community facilitators to be “attentive in the way of a conversation rather than assertive in the way of a demonstration” (Crawford, 2010; p. 82) within evaluation processes. In considering facilitation and evaluation as a stochastic art, facilitators may begin to recognize, but also accept, that there are elements of self-organized communities, which as complex adaptive systems, remain uncontrollable. By openly acknowledging this, they may feel empowered to conduct assessments that are more trustworthy (Lincoln & Guba, 1985). Such a reframing, would involve acknowledging project failure as a legitimate part of a development process, as well as a focus upon successes. This may have positive effects for community facilitators and community group members alike. For example, where predefined, externally imposed goals for community development, appear to be misaligned with the goals of a community group, this approach may liberate both community facilitators and group members from the deflation that ensues when a project is deemed unsuccessful. Viewing community facilitation as a stochastic art may afford communities the opportunity to consider failures, as well as successes, as equally valuable learning experiences.

Applying the lens of stochastic art to community action on climate change programs thus has implications for evaluation processes. Having to accept that communities may never be fully manipulated brings into question the appropriateness of a classic goal-based model of evaluation, which measures “the extent to which a program or intervention has attained clear and specific objectives” (Patton, 2002: p. 169). Using the concept of stochastic art, we argue instead, that more reflexive approaches may be more appropriate for assessing community programs. There is a clear need for more in-depth qualitative project case studies to explore how communities negotiate the evaluation process. This study, thus, set out to uncover group facilitator's experiences of assessment and to discuss implications for instigators of community-action on climate change, as well as the repercussions for evaluation and program planning.

3. Methods

To gain in-depth insights into involvement in environmental action projects, an interpretive approach was adopted within this enquiry (Schutt, 2006). This provided meaningful insights into the experiences of six community facilitators employed through a community action on climate change program. Conducting the research in an interpretivist paradigm gave credence to research participants voices (Hertz 1997). The aim of this process was to explore the experiences of all community facilitators through in-depth analysis, rather than seeking to provide a last word on the effectiveness of community-led sustainability initiatives (Patton 2002).

3.1. Study context: evaluating community action on climate change

The empirical data presented here was drawn from a larger study of a government-funded program that sought to promote community-led action for climate change. The program was funded under ‘One Wales, One Planet’ (Welsh Government, 2009) the Sustainable Development Scheme of the Welsh Assembly Government. It aimed to explore how community-led action on climate change could contribute directly to the Welsh Government’s strategic objective of reducing carbon emissions by 3% per-annum (Welsh Government, 2010). Through the 18-month lifespan of the program, six facilitators were employed to work with 18 community groups on a range of projects related to climate change and more broadly, environmental issues. Very little consideration has been given to how state-funded initiatives, which combine top-down and bottom-up methods, expedite sustainable development at a local scale (Creamer, 2014). The program discussed here is, thus, innovative and original, in that it sought to address this gap in knowledge. It had the following specific aims: to understand the impacts of projects led by community-based groups; to understand what makes community groups flourish, and how challenges could be overcome and; to understand the external support needs of community groups and projects.

The program was managed, on behalf of Welsh Government, through collaboration between an independent charity and a professional and technical consultancy. The formal evaluation process was led by the professional and technical consultancy. The independent charity, as co-managers of the program, employed six community facilitators on behalf of the Welsh Government. These six individuals were based in six locations across Wales. Each community facilitator was responsible for direct liaison with community groups. The local government authorities hosted the community facilitators. These local authorities provided the facilitators with office spaces, access to key local contacts, and local information. Representatives from these local authorities also participated in the program advisory group and took part in the recruitment process for the six community facilitators. Once recruited, the community facilitators acted at ‘arm’s length’ from local and national government, regarding themselves as having an intermediary role between government and community groups. Significantly, the program funding was restricted to the employment of the six community facilitators. They were the resource that community groups were encouraged to draw upon; no other funding was available through this program to support the actions of the community groups. The intention behind this approach was to ensure that projects remained community led.

3.1.1. Selection criteria for community-led environmental projects

The community facilitators initially each identified six to eight community environmental groups from within the region where they were based, with whom they would potentially work. Collectively, these groups focused upon a range of energy, transport, food and water management issues. From an initial broad list, 18 groups were selected after collaborative and iterative deliberation amongst the facilitators during workshops. These deliberations were based on a number of aspirational selection criteria that had been set out by the Welsh Government in partnership with the environmental charity and management and technical firm developing the project. These criteria included, identifying a range of projects from within Welsh Government’s investment areas. These investment areas included energy, water, transport and food. They also sought to include projects that were likely to result in measurable reductions in carbon emissions based upon behavior change. Other criteria included the willingness amongst the community group to become involved in action

research; geographic (urban/rural, as well as across Wales) and socio-demographic spread; a diversity of project structure and size and degrees of existing organizational support. An emphasis was also placed upon choosing projects that would have potential to elicit useful learning within the project timeframe; be replicable and inspirational and have the potential to reveal barriers and opportunities in relation to behavior change.

3.1.2. Proposed program-evaluation approach

As is increasingly common practice (Annecke, 2008), a professional consultancy was employed to devise a program evaluation approach. Initially, these consultants proposed an evaluative framework, which they developed in consultation with the project managers and Welsh Government. This framework consisted of 14 research questions that encapsulated many sub-questions. Their proposed methodology was based on a logic model approach (Knowlton & Phillips, 2012). The consultants planned to support facilitators to devise a proposed theory of change for each of the projects that they, in turn, were supporting. It was assumed that devising a theory of change, would be brought about through detailing, for each project, their inputs, outputs, outcomes and barriers. The professional consultancy proposed that, in doing so, it would be possible to explore the causal factors underpinning successful activities and outcomes for each project.

Community facilitators, thus, had a responsibility both in terms of facilitating projects and supporting the program’s research process. Once projects had been selected, facilitators then worked intensively with their three selected community groups over a 12-month period. Collaborative activities included bidding for funding and wider community engagement. These activities were aimed to support the delivery and future sustainability of these existing community projects. Communities were tasked with developing what the management and technical consultancy steering the evaluation called “logic maps” with the community groups. It was envisaged that these would determine project outcomes and ensure their alignment with the wider environmental credentials of the program (Blamey & Mackenzie, 2007). At the outset, the community facilitators conducted a base-lining exercise to assess project outcomes. Community facilitators were instructed that the measure of a successful community-led project for climate change would be dependent on two outcomes. The first was evidence of how the project drove behavior change amongst its target community. The second would be that the project led to a measurable reduction in carbon emissions. Community facilitators were provided with data collection templates to facilitate the logic mapping process. Facilitators were asked to provide interim project reports, presenting data on key indicators related to carbon emissions and behavior change. Only one of the six facilitators employed had a background in research, while the majority came from community development backgrounds.

3.2. A qualitative approach to exploring the experiences of community development facilitators

This article presents the result of a study that explored how community development facilitators experienced the process described above. The study employed a combination of in-depth interviews with community development facilitators and observational techniques. Patton (2002) argues that in-depth interviews and “description orientated observations” are useful evaluative methods “because the methods are accessible to and understandable by people without much technical expertise (p. 183). Vinten (1994) describes participant observation as a process through which “a researcher seeks to become a member of a group, organization or event under study” (p. 30). Thus, to obtain a rich appreciation of project contexts (Angrosino & Mays de Perez,

2000), participant-observation of advisory group meetings, as well as management meetings were conducted, while a review of minutes from all meetings helped to contextualize study findings. The program advisory group comprised of community development officers, academics and those considered 'sustainable living' stakeholders. Three advisory group meetings were attended during the program, as well as several progress meetings between members of the program management group. Throughout the project duration, the researcher's membership within these groups was that of "peripheral group researcher" (Angrosino, 2004). It was possible, therefore, to develop an "insider's perspective without participating in activities constituting the core of group membership" (Angrosino, 2004: p. 754).

An interview with each of the six community facilitators was conducted. These six facilitators were working with three community groups respectively. The interviews were conducted in the last four months of program delivery. Rather than aiming to generalize findings, the purpose of this paper is to provide meaningful insights into the experiences of community facilitators (Anneck, 2008; Patton, 2002). Consequently, the narratives of four individual facilitators are presented here. These narratives provide insights into the facilitator's perceptions of the evaluation processes that they were tasked with implementing.

3.3. Data collection and analysis

It was determined that a semi-structured interviewing strategy would be the most appropriate for the study. A conversational interviewing style was adopted to enable participants to direct conversations, providing insights into the aspects of their involvement that were most meaningful for them (Clandinin & Connelly, 2000). Adopting a more interactive interview style, promoted "dialogue rather than interrogation" (Ellis & Berger, 2002: p. 851). Questions were framed to gain insights into respondent's experiences of being involved in the projects. Specific attention was given to collective activities associated with the environmental projects and community involvement in the evaluation process. This included encouraging respondents to reflect on how project outcomes compared to those originally established at initiation. Each facilitator was interviewed for between 45 and 90 minutes. During this time, each interviewee reflected upon their experiences of facilitating and assisting in the evaluation of all the community projects that they each were involved with. Though each facilitator was primary responsible for three groups, where required, for example, based-on their unique expertise, they also, at times, provided additional support to other participating groups.

For the purposes of this study, interviews were then subjected to an in-depth poetic-structure narrative analysis (Riessman, 1993, 2002). This process involved a thorough examination of written interview transcripts. Poetic-structure narrative analysis is a systematic qualitative analytical technique that guides transcription, data coding, analysis and interpretation. The approach was initially formulated by Gee (1991), who posited that all speech is poetic in form. It was used in this study as it provided a rigorous means to deconstruct the accounts of the facilitators. The analysis phase began with repeatedly listening to the recorded interview. This enabled attentiveness not only to what was said, but also to how it was said. In particular, the analysis draws upon how participants use linguistic devices such as metaphor, simile, tone and humor to accentuate the issues that are most significant to them (Gee, 1991). The interviews were then transcribed verbatim and these transcripts were then structured into parts, stanzas and verses, through attentiveness to the poetic devices used by interviewees. Texts were then interpreted in the wider context of the program, as well as within the context of program evaluation

more broadly. In employing this narrative technique, it is possible to give credence to the voices of respondents and thereby helps to ensure that the researcher's subjectivity is not privileged (Hertz, 1997). It was agreed that all reported findings would be anonymized, to ensure that participation did not lead to any negative unintended consequences through exposure of viewpoints. This encouraged participants to discuss candidly. Within this paper, an online random name generator was used to create fictitious names for research participants.

4. Results and discussion

This section presents facilitator's narratives to provide in-depth insights into their experiences of attempting to gather evaluation data on community action projects, in collaboration with the associated community groups. Three main themes emerging from facilitator's narratives are explored here. The first is that the pre-determined logic model approach to evaluation emerged as problematic for facilitators in their interactions with community groups. Consequently, the article then moves on to draw upon narrative excerpts that suggest that more reflexive, participatory, action-oriented research approaches to the evaluation of community projects are necessary (Bradbury, 2001; Patton, 2002). It is demonstrated within this second section that community development might be most appropriately considered as a stochastic art (Crawford, 2010). Finally, the paper draws attention to the fact that several community facilitators expressed that enabling learning from failure would enhance program outcomes for both community groups and program funders. This focus upon the centrality of learning from failure further underlines the insights gained from considering the facilitation of community development as a stochastic art. In doing so, program facilitators may assist effective evaluation by taking into account the social and cultural contexts within which communities operate (Fitzpatrick, 2012).

4.1. Contentions surrounding logic models in participatory research

At the beginning of the program, the management consultancy offered training to all community facilitators. All community facilitators participated in the evaluation training and were open to exploration of what was, for most of them, a new field, given that their expertise was in community development facilitation rather than project evaluation. Yet it emerged from the participants narratives that facilitators experienced difficulties with the pre-designed evaluation. For example, many expressed that they experienced a sense of cognitive dissonance resulting from needing to respond to the funders and program management group and to the community groups (Cowen, 1978). Some facilitators also often felt that they lacked the skills and experience required to implement evaluation methods (Botcheva et al., 2002; Cousins et al., 2014). For instance, several facilitators felt that neither they, nor the groups they engaged with, were able to manage the measurement of carbon emissions (Reeves et al., 2014). The narratives revealed a range of reasons for this. Frequently cited issues encountered, particularly within the initial stages of the program, included difficulties associated with establishing baselines, the inappropriateness of carbon measurement and the complexities surrounding devising measures of behavioral change. Facilitators were also uncertain of how it would be possible to attribute carbon emission reductions and behavioral changes exclusively to the initiative under study.

An account offered by Matt, a facilitator who worked with three community groups on projects that encouraged bicycling and community food growing, as well as an alternative energy project, provides insight into how facilitators struggled to implement the pre-decided methodology. In the account below, Matt explained

how individual facilitators did not rigidly stick to using the measurement tools that the coordinating consultants originally put forward. He states that the reason for this was that it was necessary to take into account individual group contexts. He describes a process whereby community facilitators selectively used individual elements to guide the process of interacting with communities:

Well, different people were doing it different ways. I think some people tried to do a logic map with groups. It depended on the group really and what has put them off right at the start [laughter]. So I didn't use that logic map with the group. I used the baselining spreadsheet and the logic map as a bit of a guide for me when I was speaking to them and taking notes. So I was doing a bit more of an informal way, but I was asking, sort of, particular questions to try and get some of that information out. Or, maybe, sometimes I ran more sessions like the focus group sessions to try and get some of that information as well.

Matt's willingness to subvert an imposed evaluation approach seemed to be underpinned by the fact that he was skeptical about the role of State support (Aiken, 2014; Middlemiss, 2011) for community initiatives. Matt's narrative account below uses the linguistic device of metaphor to provide this insight. He uses an example of international aid as a metaphor, to add dramatic emphasis:

I remember reading a book about Africa by Paul Theroux, *'Dark Star Safari'*. He travelled through Africa and he did a lot of projects in the 1970's building schools and stuff and then he went back. Just travelling on public transport through Africa visiting a lot of these projects and the building were in ruins. All the books were gone, there was no classes going on, and he said, he just saw the Red Cross and people like that driving around in these brand new Land Cruisers and he said, *'have we just created this sort of dependency culture?'*...So it was quite an interesting battle with himself whether what he'd actually done in the past had been beneficial or not or whether it just led to creating more problems and sort of created a dependency culture. It's quite a difficult balance really and difficult to know what the right way forward is. I don't know, but I think you've got to have a bit of a mix isn't it really?

The above narrative account reveals that Matt felt enabling communities to be self-sufficient was integral to his role as a facilitator. The above account reveals something of Matt's perspective on the facilitation of community development. He felt that evaluations should be useful to groups, enabling their self-sufficiency. Through the employment of the above metaphoric narrative, Matt reveals that he is somewhat skeptical about external individuals and organizations imposing their idea of what is needed within the communities that they seek to help.

Matt progresses to describe how, as the program developed, facilitators and program coordinators acknowledged the difficulties of measuring behavior change and carbon emission reductions. Resultantly, the facilitators collectively decided, through their regular meetings, that a more development-oriented action research approach (Bradbury, 2001) would be taken. One of the facilitators, with an academic background, shared with the others that she had used a learning histories approach (see below) in her previous research (Bradbury & Mainemelis, 2001; Parent, Roch and Béliveau, 2007). She was, thus, able to give an in-depth explanation of the potential merits of this method, resulting in gaining the support of the facilitators. The community facilitators then proposed the use of this alternative methodology to the program funders, the environmental charity and professional and technical consultancy. It was decided that it would be possible to supplement the formal evaluation with the construction of

learning histories for each group. The realization amongst the management group that the pre-imposed evaluation methods were not effectively measuring community group outcomes, was key in terms of the program funders and management's acceptance of the learning histories approach. This enabled the facilitators to determine which research methods would be most appropriate for their purpose of evaluating community initiatives. In discussing the implications of this approach, Matt describes how he encouraged community groups to become involved in the evaluation process so that they could:

Just constantly evaluate what they're doing and try to promote a bit of monitoring evaluation . . . a system that's useful for them, rather than necessarily useful for funders . . . Just so that they can really think about what they want to achieve and how can they measure whether they're doing what they ultimately want to do, so that they can improve their project and change it over time.

Within the above account, Matt reveals how, following the difficulties that the groups had experienced in attempting to measure behavior change and reductions in carbon emissions, he endorsed the employment of methodologies to evaluate projects that did not attempt to align the communities' ideas for evaluation with those of the funder's. Instead, he felt that ensuring data collected was going to be useful to groups was the central purpose of his role as facilitator. This was a common theme amongst the narratives of all the facilitators.

It is crucial that community groups can appreciate the relevance of evaluation to their work. However, it is often difficult for such groups to see how output-based evaluation processes will lead to improvements within their practice. A lack of incentive for collecting data is a typical barrier to research processes within community organizations (Schwartz & Mayne, 2005). Within this program, it was also acknowledged from the first meeting of the project management team that communities experienced research fatigue (Annecke, 2008), while it was noted that many groups had little interest in evaluating their projects through, for example, conventional quantitative approaches or cost-benefit analysis. Thus, although the program had clear outcomes, relating to wider policy objectives, conducting this process in isolation from consideration of how communities work is problematic. As Creamer (2014) argues "funding schemes need to focus less on detailed accounting of immediate measurable outputs, such as the number of tonnes of carbon saved within short periods of time and more on building up a cohesive and comprehensive narrative of community-scale sustainable living" (p. 15). Moving away from "methods-first" approaches, towards those that take into account the context in which communities exist would seem central to the effective evaluation of community-led environmental programs (Rog, Fitzpatrick and Conner, 2012: p. 1). To this end, taking a participatory approach (Cabrera et al., 2008) to program evaluation may reveal both community and community facilitator's perceptions and motivations early on in the process. As a result, more appropriate indicators may be developed for community programs. Furthermore, developmental evaluation processes that focus more upon process than outcomes (Patton, 2002; Rey et al., 2013) may be found to be most fitting for evaluating community-led programs.

4.2. Nurturing community action as a stochastic art

Recently, the significance of communities' cultural backgrounds in evaluation processes have been noted within the evaluation literature (Fitzpatrick, 2012). Wider socio-cultural contexts emerged as influential in the courses of the projects within this study (Neisser, 1976). These factors played a significant role in the

composition and motivations of the groups. They also governed responses to an evaluation process that sought to determine effects in terms of behavior change and carbon emissions. In this respect, the concept of stochastic art (Crawford, 2010), as introduced above, provides a framework for understanding the nature of working with communities. Indeed, within this study, groups emerged as occupying unique contexts, while individuals held independent and multiple underpinning values and beliefs about what environmental action constituted. As with other stochastic artistic endeavors, such as mechanics, the matters that facilitators work with, in this case community groups, are not comprehensively knowable at program outset, nor would they ever be (Crotty, 1998). This is especially important given that the vast majority of the projects involved, existed before the government-funded program began to consider them. Consequently, climate change action was often not the main driver for community group participation. Other motivations included, for example, desire to improve local environments or to provide access to local food.

Attentiveness to context may increase the possibility of devising a methodology that communities feel able and willing to implement (Fitzpatrick, 2012). For example, facilitator Tom worked with groups to engage young people with carbon emission reduction and sustainability, as well as with communities on restoration projects. He explained that some of the projects that he and other facilitators were involved in became “frozen” as a result of the focus on behavior change and carbon emissions targets. The communities he worked with typically were not motivated by a desire to affect climate change, despite appearing “from the outside” to be concerned with related goals. Rather, these groups were driven by a range of other personal and social drivers, and were more interested in transformation at a local level. Without the ability to incentivize the collection of data, facilitators faced difficulties, given that groups were often made up of volunteers who were not driven by the desire to achieve data collection objectives. Reflecting upon this difficulty of engaging groups with the achievement of externally imposed outcomes, Tom narrates an occurrence that he witnessed during a volunteer-run, school energy project:

the key person in this group – was supposed to be learning how to deliver to [young] people at the school level. And it was a survey day, so Paul came and everybody's in the boiler room and all the kids are there and it's all like, you know, roll up your sleeves and “oh look, there's no lagging on that . . .”, “Look guys, come over here look at the boiler, which isn't firing?” And it's all very hands on and everything. And the person from the community group was just like talking to the – some of the counsellors, and wasn't really getting involved in what was – what you would have thought they would have got involved in, because that's what the project was about. And it's partly because – I think it's partly because again, volunteer organizations, you know, “I'll do what I want to do”. So that's difficult.

Echoing Patton's (2002) view that capturing “developmental dynamics” is central to progressive evaluation, Tom felt that because volunteers were autonomous, assessments should be “dynamic”. This would enable funders to gain a trustworthy representation of how projects change over time. He felt that facilitators should have:

the flexibility to move . . . so that you can act optimally. You need to be able to understand that some things might not fruit. They might bud, but then they might wither on the vine, you know. Go into cold storage and then you work with something else and you come back to that later, because voluntary groups don't work on the same timescales as businesses . . . [The relationship between volunteers and officers is] . . . a more

nuanced relationship . . . you can't be demanding. You have to be encouraging and facilitating.

The above account is revealing of Tom's attitude toward standard evaluation processes. He feels that evaluations may underserve communities by being fully pre-determined by funding bodies before a program begins. Tom expresses frustration in being unable to shape the actions of community members who became involved in the program on a volunteer basis. This meant that he experienced difficulty aligning with the funder's request for outcome data. Yet he resolves, within the above narrative, that the realities of working with community groups, often made up of volunteers, need to be acknowledged by external evaluators. To this end, he resolves that it is necessary to encourage and facilitate such groups, rather than placing demands upon them.

Coming to this realization meant that the cohort of facilitators wanted to adopt more participatory approaches to evaluation, which would involve the community groups in a reflexive process (Cabrera et al., 2008). This appreciation resulted in an informal alteration in methodology away from the logic model-based approach, originally proposed by the management and technical consultants, towards a learning history approach (Bradbury & Mainemelis, 2001; Parent et al., 2007). Torbert (2001) describes learning histories as a “new form of assessment” that has been “specifically invented to support individual, organizational, and distance learning simultaneously” (p. 257). As a research methodology, which draws upon oral history, learning histories record the stories of those involved in a particular process. Roth and Kleiner (2000) argue that learning histories enable a deeper reflection within organizations upon experiences. As a result, a learning histories approach goes beyond presenting reports on ‘best practice’. Instead, the approach can lead practitioners within organizations to feel empowered by recognizing their role within organizational processes. Bradbury (2001) argues that the emergence of the learning histories approach was “influenced by the emerging practice of organizational dialogue, whose aim is to promote participants ability to inquire into the values and assumptions from which they are operating”.

Roth and Kleiner (2000) describe learning histories as ‘a document that tells an organization its own story’ (p. 123). Developing learning histories for each project enabled participants and community facilitators to reflect on the unique journeys of their projects, for which clear beginning and endpoints rarely existed. These learning histories were created through the conversations that took place between community facilitators and community members. They were constructed, wherever possible, collaboratively, involving each individual community group. In doing so, the process enables multiple voices to be present within the research process (Riessman, 1993). Efforts are also made to integrate these voices into presented research findings. The method, thus, acknowledges differences in the memories of, or opinions on, key points in the project process. The first stage was to develop a timeline and stakeholder map for each project, as related to the research questions. The community facilitator then reflected upon the process that the group journeyed through the duration of the project. Finally, a learning history document was then constructed, in collaboration with the community groups. This document typically consisted of 30–35 pages, constructed to be useful and accessible to the group, as well as to other groups. These learning history documents then formed the basis of case studies that accompanied carbon emission measurements and evidence of behavior change in the final project reports for the funders, Welsh Government.

Gathering the learning histories of groups arguably enabled facilitators to be “attentive in the way of a conversation” in the way that Crawford (2010, p. 81) argues is central to constructivist ways

of knowing the social world. Parallels can also be drawn here to appreciative inquiry approaches, which seek to reframe evaluation, by focusing upon bringing about a ‘desired future’ (Acousta & Douthwaite 2005: p. 1). Through appreciative inquiry: ‘participants engage in a dialogue concerning what is needed, in terms of both tasks and resources, to bring about the desired future’ (Coghlan, Preskill, & Catsambas, 2003). A learning history approach can, thus, be regarded as enabling of the praxis of stochastic art (Crawford, 2010), as well as a process of appreciative inquiry (Coghlan et al., 2003). It is a potentially effective evaluation approach, provided it is not subject to an overly narrow framing or editing process by those responsible for facilitating the process.

4.3. No matter. Try again. Fail again. Fail better (Beckett, 1984)

From the outset, the program funders expressed that, as well as needing to record observable changes in behavior and carbon emissions, learning should be a key program outcome. Recognizing and learning from perceived failures is a key part of learning processes (hooks, 2003). Learning processes are also emphasized as an important element of community sustainability initiatives (Bradbury & Middlemiss, 2014; Forrest & Weik, 2014). Consequently, the learning outcomes for the community groups involved, became a factor in making a ‘valuative assessment’ (Chen, 1996: p. 122) of the program, helping to determine its merit. Yet, as can be common in both formative and summative evaluations when reporting back to funders, facilitators were encouraged to emphasize project successes. For instance, in the final stages, when given the opportunity to present reflections, facilitators were asked for “good news stories” and “good practice examples”. Donald, a facilitator who worked with University groups and with community groups on energy initiatives, recounted how, at the end of the program, funders requested reports on successes. Having worked in community development for some time, he assumed that these would be used understandably for public relations purposes. Yet, he also felt it was important that learning from failure occurred for the community groups, as well as for the facilitation team and funders (Annecke, 2008). To this end, he stated:

I'd never go out and say in public these guys failed...I'll highlight all the good stuff everyone's done, but you need to get both sides... [otherwise]... it's achieved nothing on the ground, which is why we're doing this job, or supposed to be... and I couldn't see the point of doing this, if you didn't put the negatives in... We decided right at the beginning... [we did not]... want 18 good case studies or we won't learn anything.

In the above passage, Donald brings attention to the fact that findings are interpreted in differing ways for different audiences. He also demonstrates the position that facilitators found themselves in as emic researchers (Bell & Aggleton, 2012), who had become part of the social context that they studied. Presenting a balanced argument in terms of both strengths and weaknesses of a program “so that strengths can be built upon and problem areas addressed” (Yarbrough, Shulha, Hopson, & Caruthers, 2011: p. 265) is central to ethical evaluation. Donald appears to be motivated by such ethical concerns, demonstrated in his expression of the need to present ‘both sides’ of the program. He also felt an obligation to the community groups who trusted him (Taut & Alkin, 2003) not to undermine their efforts (Scott-Cato & Hillier, 2010; Seyfang & Smith, 2007). Consequently, though Donald recognized the inevitable public relations element of promoting positive findings, he is motivated to conduct a rigorous program evaluation that enables learning from failure.

Maya, a facilitator who worked with groups on food growing, bicycling and energy projects further emphasizes the importance of learning from failure for community projects. She demonstrates how, through a learning history approach, it is possible to reframe project narratives to account for perceived failure optimistically by emphasizing opportunities for learning. Maya recounts a story concerning one of her projects that aimed to open a community shop that would improve access to local food for residents. However, multiple barriers, including differences in perspective within the community, meant that the shop never came to fruition. Maya, as the facilitator of this group, was not disheartened given that, as she put it, “some of the best learning is from projects that aren't a huge success”. Yet she describes how she felt that other group facilitators did not take such a perspective and in some cases felt:

really quite miserable about the fact that their group hadn't achieved what they set out to do. I know that a facilitator changed group part way into the program, I think because they didn't feel the group was going to be as successful as they thought it should be. I know the fact that some of [the groups] do not appear to have achieved anything during the program, although I think they have. And I think, I don't know, again it's where a learning history would have been written differently if you weren't so invested in the group. But certainly some learning histories definitely read like the group fails to achieve anything, whereas what they did was try lots of things and probably learnt from them, but because that wasn't what the research questions were asking that hasn't been asked.

The above account highlights the importance of funders being receptive of incidental and unexpected outcomes. Maya describes how, despite the creation of learning histories, the project funders and evaluation consultants mainly judged the program success upon their pre-established outcomes of creating behavior change and lowering carbon emissions. The above excerpt, thus, highlights that even learning histories can be derailed if those facilitating them are required to frame them overly narrowly, based on externally imposed research questions. Maya notes that funder's and indeed facilitator's adherence to evaluating predefined research questions made it difficult to present more nuanced learnings that emerged from within projects. This excerpt draws attention to the importance of funder openness to progressive, flexible evaluation approaches for community-led sustainability initiatives. This is important given that the outcomes of such programs cannot be fully determined at the outset. Maya's account highlights the significance of empowering community facilitators to provide holistic accounts of projects to include emergent outcomes and alternations from expected progress. The importance placed by funders on reaching pre-imposed outcomes meant that some facilitators felt forced to pursue only projects that they thought would be successful. As a counterpoint, Maya like to Donald, stresses the importance of enabling learning from unsuccessful ventures to the benefit community groups, facilitators and future programs. Adopting a developmental evaluation approach (Patton, 2002) would enable facilitators and funders to understand the complex adaptive systems embedded in community-led projects, while also ensuring that social learning is enhanced. Furthermore, nurturing community projects through stochastic art praxis (Crawford, 2010) may help to provide a supportive space within which learning can be shared (hooks, 2003).

5. Conclusion

Despite the burgeoning literature concerning community-led action for environmental crisis, scope remains for empirical

studies that consider evaluation of government-supported initiatives. The aim of this study was, thus, to provide insights into how facilitators engaged community groups with predefined assessment processes. It is crucial to note that collaborative programs will differ in terms of individual spatial and temporal contexts (Fitzpatrick, 2012). Moreover, environmental interventions are, according to Rog et al. (2012) “complex programs” that involve social and structural, as well as physical and economic processes. As a result, they require “methodological creativity and adaptation” (Rog et al., 2012: p. 29). This study sought to provide insights on an interpretive basis, into the experiences of a small group of facilitators. From the narratives of these individuals, three key themes emerged as having implications for the evaluation of community-led projects. Firstly, that developing pre-designed theory of change or logic model approaches to the evaluation of community projects emerged as problematic. Within the program under study, community facilitators were trained to address two pre-determined program outcomes. These were changes in behavior and reductions in carbon emissions. However, when community facilitators went into the field they found that these were neither appropriate nor feasible for capturing the outcomes of community-led environmental projects.

Secondly, the article presents excerpts from facilitator’s narratives that revealed that flexible evaluative approaches were perceived as most appropriate within community settings. Resultantly, it is suggested that viewing community work as a stochastic art (Crawford, 2010) enables greater reflection on the ephemeral nature of such work. Finally, facilitators felt there should be space for learning from failure within community program evaluations. The significance that facilitators ascribe to learning from failure further validates the notion that nurturing community projects is a stochastic art.

Social and cultural contexts emerge as central to governing how and why communities become involved with environmental action. Such factors also affect how individuals respond to appraisal processes (Fitzpatrick, 2012). Consequently, it is crucial to recognize the subjective and situated nature of community action. This study revealed a level of futility in devising evaluation strategies independently of the groups who will be both research subjects, as well as co-evaluators. It also highlights barriers to involvement in such processes, including lack of will, capacity, skill, time and resource. Alternatively, this study proposes that opportunities arise in perceiving fostering community action as a stochastic art (Crawford, 2010). This is because communities are independent, elusive, self-organized entities. Facilitators cannot, thus, easily shape them for larger goals. They were, therefore, likely to subvert the application of formalized, detailed, specialist assessments that lacked clear incentives for them. This article shows how more nuanced, constructivist approaches (Fishman, 1992; Lincoln & Guba, 1985) to evaluation can nurture learning and may enable greater community involvement and acceptance. In extending learning in this sense, it may be possible to progress beyond simple, measures of observation, to consider benefit in its broadest sense, engaging stakeholders in an iterative process that realizes the goal of learning from experiences.

More specifically, several participants within this study noted the importance of learning from failure within community-led projects (Crawford, 2010; hooks, 2003). Yet, as Donald identified, such learnings were often ignored in the bid to inform public relation activities. Moreover, as Matt identified, facilitators often felt they needed to protect their participants from negative judgment. Yet such processes were also recognized as integral to meaningful evaluation. Donald, for example, felt that though perceived failings should not be publically revealed, there needed to be space for the exploration of failures with funders. Facilitators also felt that failure could be reframed. For example,

Maya felt that, in this context, the idea of failure was not absolute, given that community-led work does not have clear beginning and end. Learning experiences could be integral to future successes and softer methods, such as recording learning histories (Parent et al., 2007) were seen as integral to making this possible.

5.1. Lessons learned

Although the academic literature on community-led environmental action is burgeoning, the evaluation of such programs is underexplored. This paper thus aimed to provide an in-depth understanding of how facilitators and the groups they worked with experienced such practices. It seeks to contribute to both the field of evaluation and community-led environmental action. This is achieved through a critique of how logic model-based approaches are perceived by groups. Evaluation is arguably an attempt to establish an optimum level of activity, regardless of context and locality and “even though it is incalculable” (Latour, 2013; p. 462). The study has revealed that social and cultural factors influence engagement with environmental change (Rog et al., 2012), while levels of competency, interest and the perceived value of evaluation influence responses to such processes (Fitzpatrick, 2012). Flexibility in methodology offers a pathway towards meaning. It also points towards a need to reframe project failures as inevitable and ultimately beneficial, enabling understanding of interdependencies (Crawford, 2010; hooks, 2003).

This study implies a need for funders to move beyond utilitarian, reductionist approaches that ensure project delivery, to evaluations that recognize the value of learning and experimenting above isolated impacts. Over the course of this project, pre-emptively determining outcomes emerged as problematic. Methodologies that reveal interdependencies involve “groping, feeling our way through” (Latour, 2013, p. 460). Developmental Evaluation, which adapts to the “disorderly and uncertain realities of complexity rather than seeking to impose order and certainty” (Rey et al., 2013; p. 50) offers a potential means for future community engagement. While, presenting case studies (Fishman & Neigher, 2004) also holds potential, particularly as information technology makes it increasingly feasible to present large amounts of data in a wide variety of media formats. To this end, this study supports calls for ethnographic, anthropological methods, capable of “developing locally grounded explanations” (Bell and Aggleton, 2012; p. 796).

Underpinning this is also a need to realize sustainability as a concept focused on process rather than a goal (Stables, 2004). Recognition needs thus to be given to journeying towards an alternative future through stochastic art (Crawford, 2010), attempting to work with pre-existing imperfect systems (Patton, 2002). Such complex adaptive systems (Innes & Booher, 1999) require process orientated evaluation approaches, such as developmental evaluation. Developmental evaluation (Patton, 2002) recognizes the autonomy of program participants and the self-organizing nature of communities. Furthermore, both community facilitators and community groups within this study possessed their own motivations for and interpretations of the projects that they were involved in. Consequently, the evolving meaning of sustainability indicates that early and iterative involvement of these stakeholders in establishing appropriate measures, as is advocated within participatory action research (Cabrera et al., 2008), is crucial. Rather than assuming facilitator and community buy-in within evaluation processes, it also underlines the significance of adopting reflexive methodologies that enable meaningful insights, in the context of place and cultural specificities (Fitzpatrick 2012). Ultimately, progress within the field of community program evaluation would involve taking

time to get to know groups and demands local knowledge as well as a willingness to experiment and to “fail better”.

Acknowledgement

This work was partially supported by a grant from the Welsh Government.

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