Food Research Collaboration

Participatory Action Research with Local Communities: Transforming our Food System

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Abstract

Building a more just and sustainable food system requires changes at different levels, from our day-to-day eating choices to global institutional arrangements and from food producers and consumers to policy makers and academics. A key element in the transformation of the food system is how we share and create new knowledge that supports this transition towards a food system that delivers good food for all. This briefing paper aims to contribute to a more engaged research process by describing and reflecting on one experience of Participative Action Research (PAR): live projects with MSc students at Cardiff University. For that purpose first we present a short introduction to Participatory Action Research (PAR) as a tool for social change, followed by a description of live projects as part of an MSc module on sustainable food at Cardiff University. Subsequently, we further illustrate two of these live projects conducted in 2015. The first example deals with the opportunities and challenges of establishing a local 'food hub' by the Riverside Community Markets Association (RCMA), which included engaging different stakeholders throughout the process and contributing to the literature on community-building and short food supply chains. The second project is based on an investigation into the uptake, or the lack thereof, regarding a vegetable box delivery scheme run by the Riverside Market Garden (RMG); this project involved unpacking real world challenges of economic sustainability that affect many of these alternative food initiatives. Finally, we reflect on this experience by examining how it generates value for students, organisations and the faculty, as well as the challenges we face; ultimately highlighting how PAR can be part of academia's commitment to changing the food system and all of us that are part of it.

1. Introduction

Building a more just and sustainable food system requires changes at different levels, from our day-to-day eating choices to global institutional arrangements. From food producers and consumers to policy makers and academics, we all need to be open to transform our routine practices. A key element in the transformation of the food system is how we create new relationships and knowledge that support this transition towards a food system that delivers good food for all.

This willingness to contribute to positive social change inspires participative action research projects. Participatory Action Research (PAR) is a collaborative process between academic centres and organisations that aims to generate useful knowledge and translate it into specific actions. The overall process is based on the active

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participation and constant reflection by both academics and practitioners, including cooperation throughout the design, data gathering, analysis and implementation of research results.

This briefing paper aims to contribute to a more engaged research process by describing and reflecting on one of the multiple ways to conduct action research: live projects with university students. We are aware of the multiple initiatives that are trying to forge new relationships between practitioners and academia in order to transform the food system. With this document we hope to initiate a conversation around how academia and learning institutions can contribute to more just and sustainable food systems, calling for a reflection on our practices and sharing good examples.

The document is structured as follows. Firstly, we present a short introduction to Participatory Action Research (PAR), followed by a description of live projects on sustainable food by MSc students at Cardiff University. Subsequently, we further illustrate two of these live projects conducted in 2015: one on a Community Supported Agriculture initiative, and the other on a potential food hub in Cardiff. Finally, we reflect on this experience by examining how it generates value for students, organisations and the faculty as well as the challenges we face.

2. Participatory Action Research

There are many different ways to define and practice Participatory Action Research (PAR), partly due to its long tradition and application in different disciplines. Despite evidence of action-research processes dating back to the beginning of the 20th century, the work of Kurt Lewin in community development plans in the 1940s is regarded as the first attempt to conceptualise this practice. Lewin defined action-research as a participative and democratic process carried out with the local population, engaging people in the different stages of the research project. This approach to action-research argued for a simultaneous contribution to theory, practice and positive social change (1). These first works have been classified by Kemmis and Mc Taggart as the first generation of action research, which quickly lost momentum given the dominance of positivism in academic institutions (2).

In the 70s the so-called second generation emerged in the UK, linked to organizational development action research projects. This approach was contested given its eminently practical character, which led to explicitly critical and emancipatory action research constituting the third generation. Finally the fourth generation - called critical participatory action research - resulted from the combination of former critical perspectives and the work developed within social movements mostly in the developing world. This critical PAR was supported by academics such as Paulo Freire and Orlando Fals Borda (3-4), but also by practitioners such as social workers and school teachers. This last generation highlights two key themes: the development of theoretical arguments to justify a more actionist research approach, and the need for participatory action researchers to link their work to broader social movements (2).

As this historical evolution reveals, there are different approaches and definitions to action research and how to conduct action research (see some useful references below). Stemming from this literature, in this report we take a simple definition of PAR, as a process that includes research, reflection and action. This process aims to develop robust and useful results that have a positive impact on people's lives and society as a whole. PAR is based on the involvement of the 'objects' of research (individuals or organisations), and therefore these 'objects' become protagonist 'subjects' of the research project, participating in decision-making and interacting throughout the whole research process. In this line, we want to highlight two elements that distinguish action research from more conventional approaches:

From external knowledge to the co-production of knowledge

Positivist approaches to knowledge creation have pervaded natural sciences and the public imagination, stating that research produces objective and impartial knowledge. Furthermore, this ‘valid’ knowledge is conducted by specialised organisations that do

not conform to a specific ideology. However, there is a wide recognition of the influence of the researcher on the object of the research (what we study), and also of how the research is influenced by the object (5). The absence of objective knowledge does not invalidate knowledge itself; instead, it calls for a rigorous application of research methods and techniques, as well as requires researchers to be open and explicit about the research process to avoid manipulation.

At the moment, it is particularly relevant to acknowledge the diversity of interests around science, with scientific knowledge being an increasing "source of information and a claim to power and influence" (6). Technological innovations and competing knowledge claims are becoming central elements in food system dynamics and debates such as in the case of biotechnological advances on the seed industry and the recent debate on regulating seed exchanges in EU[iv]. If sustainability is a contested concept constructed by multiple actors that hold different values and ethical perspectives in specific socio-economic contexts (7), questions such as how sustainability outcomes are prioritised and by whom constitute key elements in shaping the right course of action (8). Consequently, it is paramount to incorporate more actors and knowledge in order to unpack and unblock conversations in food security and sustainability debates.

In this line, PAR proposes a co-research approach where people involved in the topic participate throughout the whole process, including a co-design of the research: what are the research questions, how are they going to be answered, what is the timeline, etc. This collaborative process allows the development of collective knowledge, valorising the different types of knowledge of the stakeholders involved rather than restricting knowledge creation to academics and specialists. Therefore, this approach promotes a democratization of knowledge, from identifying what type of knowledge we need, to how we create and share that knowledge. Inevitably, the cooperative process also faces difficulties; and people will also have different levels of involvement in the research.

Changing overall aims: from research that serves academic purposes to a contribution to social change

Research projects designed in isolation from potential beneficiaries would seldom contribute to produce new ideas and solutions that consider societal needs. This disconnected approach of knowledge creation in academic institutions is reinforced by education systems and research centres that champion individualised results in academic outlets such as specialised journals, books or patents subject to expensive access. On many occasions, these findings are not even shared with the individuals and organisations that participated in the research or the society as a whole, despite the fact that the research might be financed with public funds.

PAR aims to generate knowledge that is useful not only to a specific group of people, such as a consumers' cooperative, a high school or an NGO; but to make that knowledge accessible to society as a whole. This can be achieved by developing specific actions derived from the results of the research that have an impact beyond the actors involved in the process. For example, an environmental assessment of a river is useful to report and propose solutions to pollution sources that will benefit society and the environment. It is paramount to share the results with participants, but

[iv] The Members of the EU Parliament in January 2014 voted against a proposal on the commission on the Regulation on agricultural seeds and other plant reproductive material (Ecologist, 2014 http://www.theecologist.org/News/news_round_up/2261055/meps_vote_against_eu_seed_regulation.html), partly based on the discrimination against other seeds rather than industrial ones, and its effects on small farmers, small companies and biodiversity. Interventions included the presentation of a new study developed by Mammana, I., 2014 (https://www.greens-efa-service.eu/concentration_of_market_power_in_EU_see_market/files/assets/common/downloads/page0040.pdf) on the concentration of market power in the EU seed market.

also to disseminate and make the experience accessible to other potentially interested partners. For example, people might be interested in how a participatory study on water pollution was conducted to be able to replicate it, or to use it as a reference for other environmental reports. This approach considers research and its results as a public good.

In order to comply with this vision, there are several aspects that need to be taken into account when carrying out the research. Firstly, the research process requires an open and egalitarian space for reflection, where participants feel empowered and valued to critically assess the process and propose activities. This space is key to empower different actors to engage in the research process as well as in the activities derived from the research. Furthermore, the experience of dialogue, self and collective reflection, and horizontal decision-making processes contributes to generating changes in our daily social practice.

3. Participatory Action Research through live projects with MSc Students

In the School of Planning and Geography at Cardiff University, we offer MSc students the opportunity to engage in a live project to develop a small participatory action research project on food initiatives. This live project is embedded in the optional module called Sustainable Food Systems, and constitutes part of the assessment for the module. In order to identify these live projects, it is paramount for module organisers to maintain an active connection to the local food scene in Cardiff. In the last two years, the active participation of one of the module's organisers (Dr Moragues Faus) in the Cardiff Food Council has allowed her to promote the concept of live projects amongst local civil society organisations working in food. In conversation with her, the interested organisations identify key research questions that they want to tackle and select a contact person to guide the live project. The live project briefs are then presented to the students who select a project to be developed in a team of three to four members. Each team contacts the specific organisation and develops the research project with the responsible member(s) of the organisation.

There are two main elements to consider in developing this PAR activity:

Relationship with local organisations: The development of live projects with students dates back several years, when the module was actually called Local Food and Sustainable Development. Initially, these live projects were mainly identified by a local activist that had a close relationship with the faculty. Extending those contacts and participating regularly in the Cardiff Food Council has allowed greater diversity of food-related topics (health, production, waste, etc.) and the potential to engage with different types of stakeholders (activists, policy makers, social workers, etc.). In addition, the possibility of discussing the live projects at the Cardiff Food Council and disseminating this activity through its networks is instrumental to open up this 'resource' to different institutions. This fluid relationship helps to monitor the process, to discuss the level of student engagement with the organisations, and also to make sure the results of the research are delivered not only to those specific organisations but to the wider local network of institutions.

Student experience, quality and assessment: The students are expected to develop the research project in conversation with the local organisation that provided the live project brief. Students work in groups and are assessed through a presentation that should include the following:

- Introduction. Scope, goal and questions/objectives of the study undertaken.
- Literature review. Issues and questions emerging from the academic and policy literature produced in that specific field.
- Methodology. Justification for the methods selected to address the research objectives/questions identified

- Description of the case study. Presentation of the empirical data collected.
- Analysis of the empirical data collected.
- Conclusions. Research limitations, future research needs and wider issues emerging from the research including policy recommendations and actions to be undertaken.

The project requires students to critically appraise theory and policy documents, access and analyse data, and engage with policy-makers and practitioners. The research should also aim to provide an analysis of the topic selected that clearly addresses the role of food systems in promoting the economic, social and environmental objectives of sustainable development in order to connect this work with lecture materials.

The live project constitutes 40% of the overall assessment of the module. Marks are given on a group basis for clarity and style as well as the content of the presentation. Each team member is expected to speak for a minimum of five minutes and the group's presentation is followed by a five-minute Q & A session from the faculty. Participant organisations and practitioners are invited to the presentations.

Throughout the module, students are encouraged to discuss their progress on the live projects either during seminars or in specific meetings with the faculty. In the first seminar of the module, Dr Moragues-Faus introduced the rationale for the live projects and the assessment details as well as the ethics involved in conducting research with civil society organisations, mainly reminding students of the importance of sharing the results of their research with the organisations. Inevitably, there are students who perform better in this task than others, and sometimes students fail to respond to the research questions posited in the live project or fail to engage with the organisation.

Table 1 showcases some examples of live projects undertaken in the last two years.

Table 1: Examples of live projects (2013/2014 and 2014/2015)

Organization	Project brief
The **Riverside Market Garden** (RMG) is a community supported agriculture initiative in the outskirts of Cardiff http://riversidemarketgarden.co.uk	Project 2014: Could small-scale **microleaf salad production** be the basis for a financially viable urban agriculture enterprise that also contributes to a sustainable food city? How much of an area would be needed? What should be grown? How should it be grown? What are the best routes to market? What is the realistic projected turnover (looking at similar enterprises elsewhere)?
	Project 2015: RMG is moving from a **vegetable box pickup system** to a box delivery system for the customers of its locally grown organic produce. What we would like to know is whether this new system would make a significant difference to how RMG is perceived by existing and potential customers. And does this justify the extra costs incurred by having this system?
The **Riverside Community Market Association** (RCMA) runs weekly farmers markets in Cardiff. http://www.riversidemarket.org.uk	Project 2015: Having run the award-winning Riverside Market and other farmers markets in Cardiff for several years now, we at RCMA are of the view that a key way to expand access to, and the demand for, local and sustainable food is to establish some kind of a full time **'local food shop'** in the city. The forthcoming programme of Community Asset Transfers (CAT) being undertaken by Cardiff Council may make suitable premises available at a sustainable rent. We need research into how the CAT programme is progressing, what properties will be available and whether any of them might be suitable for such an initiative. We also need help with market research (is there the need and demand for such a retail outlet in Cardiff) and creating a basic business plan for such a proposal.
Severn Wye Wales Urban Communities project. This project aims to support people in local	Project 2014: We are looking for a best practice research on using **land for growing** on a 'meanwhile use' basis. In particular focusing on: – Various options for land use – Optimum size of land

places, connecting them with various stakeholders in order to deliver effective and long-lasting local sustainability projects.	– Minimum time needed to make project worthwhile – Average costs – Risks/benefits
FareShare Cymru works to alleviate food poverty by tackling food waste. We do this by taking in good quality surplus food from the food industry and redistributing it to organisations (that we call community food members) that use the food to feed people in need. http://faresharecymru.org.uk/	Project 2015: FareShare Cymru is planning a period of growth. We are looking to identify potential **Community Food Members** in the south Wales area that have kitchens and could put the food we supply to good use. How many potential organisations are there, where are they, who are they, what do they do and what is their size?
Cardiff Food Council, which was established in 2012, includes representatives from Welsh Government's health improvement division, several departments of Cardiff Council, Cardiff and Vale University Health Board, Public Health Wales, Cardiff University and a wide range of third sector organisations. http://foodcardiff.com/	Project 2014: The role of the **wholesale food market** in the access to fresh fruit and vegetables in Cardiff. – To review the background literature on the role of wholesale fruit and vegetable markets in effective local food systems, access to affordable fruit and vegetables, and local economic development and sustainability. – To search the literature to identify examples of good practice of wholesale fruit and vegetable market from other cities. – To find out the number of fruit and vegetable traders at Bessemer Road wholesale market, and the scale of their distribution of fruit and vegetables to Cardiff and the City region.
	Project 2015: There are a lot of families that are struggling to feed children over the **school holidays**. What cost effective approaches could be used to feed children, and educate them by developing cultural capital around food during the holidays?

These projects have had different impact in the organisations that proposed them. In some cases these small pieces of research were just the starting point to gather more information about a specific issue. This is, for example, the case of the micro-leaf salad production in the Riverside Market Garden which has been developed as a key activity of the garden. Another example is the research on using land for 'meanwhile use', which has led to establishing different planters managed by the community in the area of Roath, Cardiff. The research on the role of the wholesale food market served as a basis for the Cardiff Food Council to discuss with the Council the future of this key food infrastructure given that the land where the food market is based has been sold for redevelopment. Evidently, these projects are instrumental in presenting preliminary evidence and advocating for specific food campaigns. Similarly, the project on school holiday hunger provided evidence to support the successful Summer Holiday Enrichment Programme led by City of Cardiff Council Education Catering and Cardiff and Vale University Health Board (Public Health Team and Public Health Dieticians) under Food Cardiff. This was a pilot project in five schools in Community First areas during the 2015 summer holidays that provided more than 100 children with a safe, familiar environment in which to run around, be creative, to learn and to share meals with their friends. Furthermore, one of the students developed his MSc thesis around this pilot supporting the implementation and assessment of the programme, and has now joined the Public Health Team with an internship.

In the sections below two of the MSc students on the module, Joan Wang and Aziz Omar, describe the live projects they carried out in Spring 2015.

Growing containers in Roath – Growing in a 'meanwhile' basis project

Harvest from the Riverside Market Garden in St Hillary - Seasonal produce and other items constitute the vegetable box delivery scheme

4. Example 1: Creating a Local RCMA 'Food Hub'[v]

Introduction

The Riverside Community Markets Association (RCMA) has been active in the Cardiff food scene for a long time, currently operating three successful weekly farmers' markets in Cardiff among other initiatives. The importance of sustainable food is incorporated into all of RCMA's activities through three key aims: supporting local businesses, increasing the access to affordable, fresh and local produce in Cardiff, and creating a sense of community around the best food available (9).

4.2 Research Problem, Aims and Questions

The aims of the organisation form the basis for RCMA's most recent ambition to create a permanent local food shop in the city. Producers around Cardiff will be able to sell their fresh produce in this shop on a more regular basis to a wider audience. Besides providing a permanent space for local food in the city, the RCMA also aims to give the shop a range of different community-building functions, such as a small cafe, a multi-purpose kitchen for cooking workshops and meeting space for the community and local businesses. The shop would thus become more of a social 'food hub' rather than a straightforward food shop. Although the creation of such a permanent food hub presents many challenges, the recently announced Community Asset Transfer programme by Cardiff Council has opened up new possibilities.

To explore these possibilities, the RCMA and three MSc students jointly set up this research project. The RCMA identified Roath and Cathays as potentially suitable neighbourhoods, centrally located in the city. Thus, the overall aim of this research project is to analyse how such a food hub could be feasible in these neighbourhoods, with the following research questions:

Research question 1: In what way can a local food hub contribute to a sustainable food system?

Research question 2: What actors are active in the local food and community scene of Roath and Cathays?

Research question 3: What community-building functions could a food hub have in Roath and Cathays?

Research question 4: In what way can a local RCMA food hub fit into the local food scenes of Roath & Cathays, and what are the main opportunities and challenges?

Instead of focusing on the original questions posed by RCMA (i.e. exploring the CAT programme, administering some market research, and creating a business plan), the aims and objectives of this research project have been jointly modified by the students and the organisation's representative at the outset of the project. This ensures that the project is useful and valuable for both the RCMA and the MSc students.

[v] This project was carried out by MSc students Merlijn de Bakker, Alasdair Yule and Joan Wang.

4.3 Methods

The aim of this research is to find out “what is happening; to seek new insights; to ask questions” (10). It is therefore an exploratory and descriptive research study, for which qualitative methods are most suitable (10). Mixed qualitative methods are used, including a literature review of the 'food hub' concept, desk research of best practices and neighbourhood demographics, and eight semi-structured interviews with community stakeholders from the local community centre, community gardens, the food bank, business owners, etc. In this way ‘triangulation’ - the use of different data collection techniques within one research study - is used “to ensure that the data are telling you what you think they are telling you” (10).

4.4 Literature Review

The third sector is increasingly moving into service provision, engaging in local development work and governance (11). Within this context, community food enterprises are becoming key actors in the urban foodscape. They are well placed to develop positive urban-rural linkages, and to provide and experiment with alternative modes of delivery. Third sector initiatives are grounded in place, and can build trust, quality and efficiency through local knowledge. As bottom-up initiatives, they are more capable of engaging local communities in ecologically sound food production systems. Community food enterprises can scale up their impact on the local food system by developing physical and social infrastructure, and by striving to alleviate other forms of social injustice in the area.

The ‘food hub’ concept

The term 'food hub' has a significant presence in the sustainable food literature with several interpretations, each emphasising different—and sometimes intersecting—aspects of sustainability. But in general, all interpretations reflect the principles of a short food supply chain (SFSC), as they are “‘simplified’ modes of food provisioning that re-connect producers and consumers around sustainability values and objectives” (12).

Definitions

Using the concept of SFSC as the basis, a food hub has been defined broadly as an intermediary between producers and consumers (13), and specifically as a facility of “aggregation, distribution, and marketing” that also leaves “positive economic, social, and environmental impacts within their communities” (14). Barnham’s definition introduces the three pillars of sustainability as well as advocating for the multi-functionality of food hubs. As a result, food hubs encompass various existing schemes such as distribution centres, farmers’ markets, and community kitchens.

An ambitious claim is that food hubs can actually be hybrid entities that “have the potential to capture many of the advantages of both alternative direct marketing and the mainstream, large-scale distribution system” (15). More broadly, food hubs have been described as innovative ways to combine “economic, organizational and physical structures of the appropriate scale for local aggregation and distribution of food” (15).

So how can RCMA’s potential food hub be located within this myriad of aspects that the ‘food hub’ represents? Drawing from different academic classifications of food hubs, the RCMA hub would embody two main characteristics. Firstly, it would be an active manager that facilitates relationships between stakeholders and “supports defined objectives that free markets on their own may not achieve” (13). Secondly, it would remain a “courier” that solely “carries foodstuffs without entering into purchase and sales contracts,” given RCMA's success with the concession model of its farmers' markets where producers pay concession fees to sell their products (13). But in contrast with farmers' markets’ individual stalls, RCMA’s food hub would maintain an adequate “degree of physical presence” to present the products in a conventional grocery-store format by “[managing] collection, warehousing, distribution services” etc. (13).

Case studies

The literature on food hubs contains several case studies. In a project by Stroink and Nelson, a successful example of a multi-functional food hub (in other words, a successful synergy) is the first food hub in Northern Ontario, code-named ELS (16). Similar to the RCMA's envisioned food hub, "ELS began as a stall at the farmer's market and based on that success opened a storefront location in downtown" (16). On top of using government-funded internships to hire temporary staff, the ELS is particularly notable for its innovative ways to combine multiple functions such as office renting, institutional procurement, business incubator and educational activities to attain more income streams (16)[vi].

4.5 Results and Discussion

In this section, the empirical analysis of the research project is summarised according to the four research questions mentioned in section 4.2.

Research question 1: In what way can a local 'food hub' contribute to a sustainable food system?

This research question has already been addressed through the literature review in section 4.4.

Research question 2: What actors are active in the local food and community scene of Roath and Cathays?

Ideally, the food hub should be located in a vibrant residential neighbourhood that is central enough to provide easy access for neighbouring communities. The RCMA considers Cathays and Roath as potential neighbourhoods for the food hub.

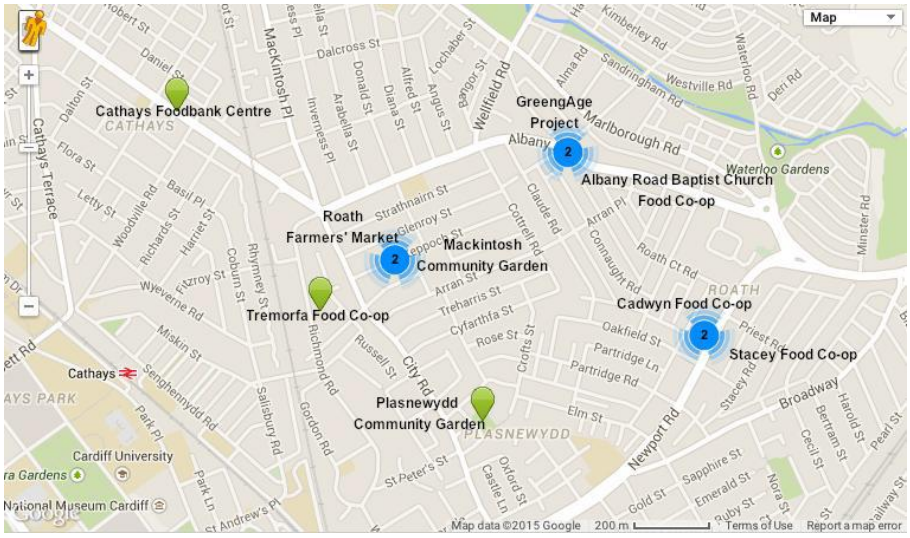
Cathays is an easily recognised and demarcated neighbourhood, as it is located immediately east of Cardiff University from Senghennydd Road to Crwys Road. On the other hand, Roath is more ambiguously defined as "[the] area is bound roughly by City Road on the west, Newport Road in the south and Roath Park in the north" (18).

In terms of the food-related activities in these neighbourhoods, there are several organisations that may be connected to RCMA's food hub. Using the Find My Nearest tool from Food Cardiff, these organisations are identified by the categories: Community Farms & Gardens, Farmer's Market, Food Bank, Food Co-op, and Food Redistribution Centre (19). In total, there are three community gardens (all in Roath), one farmers' market in Roath (by RCMA), four food co-ops (three in Roath, one in Cathays), and one foodbank centre in Cathays (19). Out of these organisations, the research team was able to interview the Mackintosh Community Garden in Roath and the Cathays Foodbank Centre. Figure 1 presents these neighbourhood organisations, with Cathays roughly on the left, and Roath on the right[vii].

[vi] For a detailed overview of ELS as well as two other case studies in the UK (from phone interviews), please refer to the report by de Bakker, Wang & Yule (17).

[vii] For a more comprehensive profile of each neighbourhood and the results of semi-structured interviews from several organisations in the neighbourhoods, please refer to the report (17).

Figure 1: Food Initiatives in Cathays and Roath



The profile was analysed using census demographic data from Cathays Research Centre (20-21); the table of comparison of relevant data is presented in Appendix 3 of the report (17).

Research question 3: What community-building functions could a food hub have in Roath and Cathays?

During the first meetings with RCMA, an overview has been made of the local 'food hub' concept as envisioned by RCMA, including the possible community-building functions that the hub could have. Combined with inputs from the literature review, a list of primary and possible secondary functions for RCMA's potential food hub is compiled below.

Primary functions include retail space, space for loading supplies and vehicles, storage space for food and equipment, and being accessible by foot, bicycle and car (a minimum amount of parking space is inevitable).

Some possible secondary functions include a cafe environment, kitchens for various functions (teaching families some relevant soft skills, product development for businesses, and facility rental to businesses), office space (for RCMA but also to rent out to other local food-related businesses), meeting space (where producers and buyers can meet), and a small distribution centre for suppliers (renting out fridge space, etc.).

Research question 4: In what way can a local RCMA food hub fit into the local food scenes of Roath & Cathays, and what are the main opportunities and challenges?

A central theme that emerged from the stakeholder interviews is community building. Catherine Williams, the manager of Cardiff Foodbank, states that the hub should be "a proper community space" where all residents can meet; and it could create the "community 'knock-on' effect (...) connecting people and local businesses in the neighbourhood" (17).

Furthermore, many stakeholders echoed the opportunity for the food hub to fill gaps in the community, one of which is the educational gap. Providing cooking courses and other educational activities will have a positive effect on all aspects of residents' food behaviour, from eating healthily and fighting food poverty to the minimisation of food waste. A second gap identified by the stakeholders is the need for a stronger food network in the neighbourhoods. Although there is an abundance of community and local food initiatives, the food hub can facilitate a cohesive network of existing community initiatives to increase their transformative potential. Physically, the RCMA food hub could be a meeting point for local businesses.

On the other hand, there are several potential challenges for the food hub. Firstly, the food hub must be inclusive to all income groups and "accessible for all community members" (17). Many organisations in the neighbourhoods—such as the Cathays community centre and food bank—are open to cooperation, which could offer ways to address this challenge. A second important challenge is cynicism and conservatism among the local community. A community coordinator explained in an interview that a key challenge for him was to convince local businesses and people to become involved in his food initiatives. Therefore, he believes that it is important to keep community-building as a 'backstage' aim. For the RCMA in particular, he therefore states: "don't make it obvious it's a community hub, that might put off potential customers" (17).

In association with farmers' markets, the RCMA food hub must fend off the general perception of high cost, privilege, and lack of regard for ethnic and cultural diversity. A simple solution is to deliberately separate the RCMA farmers' market and potential food hub in its advertisements. But as Guthman exerts, "no space is race neutral"(22). Her research on the misconceptions of alternative food advocates point out two trends: colour-blindness and universalism. Firstly, advocates of farmers' markets often do not see the significant effects of the 'whiteness' of farmers' markets on excluding underrepresented groups (22). Moreover, advocates often exhibit universalism in assuming that farmers' markets "are universal spaces that speak to universal values" (22). As a result, they use the 'if only they know' rhetoric to simplify the promotion of farmers' markets as 'educating the ignorant' (22). In addition, this also resembles the neoliberalist tendency to describe people's food consumption patterns as a personal lifestyle choice, instead of the result of many structural issues (22). For the food hub, the RCMA must avoid this mind-set by partnering with organisations that already represent people from diverse cultural and ethnic backgrounds, and making the space inclusive and not too assertive. Therefore, not only for the retail space, the café and workshops also need to reflect the diverse food culture[viii].

5. Example 2: Increasing Outreach for a Local Vegetable Box Delivery Scheme[ix]

Riverside Market Garden
Sowing Seeds of Change

5.1 Introduction

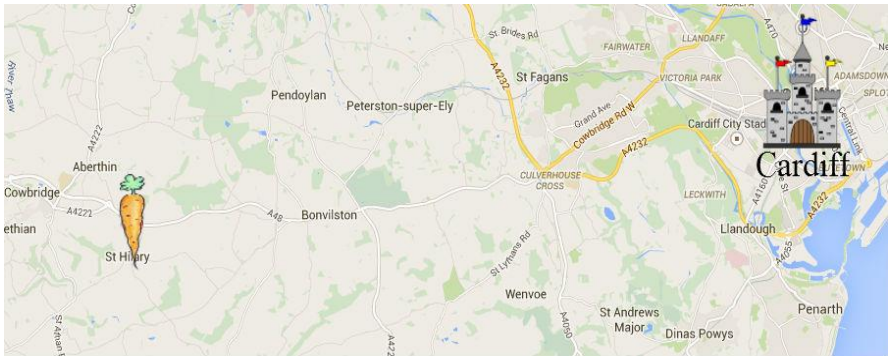
The Riverside Market Garden (RMG) describes itself as a community-owned industrial provident society and is funded through grants and its shareholders. It is located on a 5-acre patch of land in St Hillary, which is 10 miles westwards of Cardiff. Since its inception in 2009, the RMG has structured its operations around the mission:

To bring fresh local vegetables, fruit and associated products to the people of Cardiff and the Vale of Glamorgan, and to share with them our knowledge about small scale local organic food production

[viii] For a detailed account of stakeholders' interviews, please refer to Appendix 5 of the report by de Bakker, Wang & Yule (17). In addition, for stakeholders' recommendations on potential partners and funding streams, please refer to Chapter 6 of the report (17).

[ix] This project was carried out by MSc students Aziz Omar, Norma Jean Worden-Rogers, Ali Pierpoint and Llyr Morris.

Figure 2: Location of the RMG in Wales



5.2 Research Problem, Aims and Objectives

Over the years, the RMG has experienced difficulties in creating and scaling up a market for fresh organic produce. Moreover, there was also the problem of what the RMG described as customer 'churn', where less-motivated customers eventually become weary of making the trip as part of a vegetable box pickup system (23). Hence, the RMG is in the process of moving to a box delivery system for its customers to regularly receive locally grown organic produce as well as increase profitability. Consequently, RMG wished to find out whether the new system was changing the perception of existing and potential customers about the box scheme, and whether the extra costs that it is incurring by having such a system will pay off in the mid-term.

Such an assessment has become imperative, as the RMG is at the moment heavily reliant on grant funding from the Welsh Government. In order to prosper without grants, the RMG needs to sell approximately 70 vegetable boxes per week to become financially sustainable.

There is a need to better understand the relationship between the RMG and its shareholders, mainly by exploring why the vast majority of shareholders do not purchase vegetable boxes, despite the fact that they invested in the enterprise purchasing shares. Furthermore, shareholders are also entitled to a discount on the vegetable boxes. Some of the hypothesis from the organisation revolved around whether there is a lack of choice in configuring the boxes, or if they are simply feeling detached from the initial drive towards supporting a local-community based organic farming venture. However, this live project not only aimed to find out the motivations from the shareholders who were not participating in the vegetable box scheme, but also from those who were actually buying the boxes in order to understand their reasons and motivations for doing so.

The following research questions shaped the research methodology and guided the subsequent analysis and reflection.

Research question 1: What were the original intentions of the shareholders for investing in the RMG?

Research question 2: Where are most of the shareholders sourcing their vegetables from if not the RMG vegetable box scheme?

Research question 3: What is the level of awareness regarding the vegetable box delivery scheme among the shareholders and what kind of opinions do they hold about the veg box scheme as well as about the RMG as a whole?

5.3 Literature review

In the past couple of decades, sustainable development has become a priority worldwide, with governments from 178 countries including the UK agreeing to adapt an action plan for sustainable development, the 'Agenda 21', to the needs of their own country (24). Consequently, local food systems are emerging as alternatives to models

where producers and consumers are separated through a chain of manufacturers, distributors and retailers.

One such initiative that is gaining popularity is organic fruit and vegetable box schemes organised under community supported agriculture initiatives, which, according to several studies, address all three criteria of sustainability as defined by the Brundtland Commission (25), i.e. they are economically, ecologically and socially sustainable (26-27). Community Supported Agriculture (CSA) is a partnership between farmers and the local community, in which the responsibilities, risks and rewards of farming are shared (28). Invariably, organic vegetable box schemes and CSAs constitute just one form of short food supply chain or the so-called alternative food networks. These alternative forms of food provisioning are characterised by their capacity to re-socialise or re-spatialise food through a redistribution of value along the supply chain, the articulation of new forms of political association and market governance and the re-creation of trust between producers and consumers (29-30). One of the key issues in CSAs and box schemes is the level of engagement between producers and consumers as our case study shows. The role that the customers of a vegetable box scheme play can also constitute an example of sustainable consumption, where individuals are deemed as one of the principle drivers of change and are encouraged to 'do their bit' by buying 'green' or 'ethical' goods" locally, ultimately seen as leading towards environmental citizenship (31). Hence, the emergence of the community supported agriculture (CSA) model, though rekindling local farming knowledge systems and practices, is also seen as displaying elements of the larger framework of sustainability.

A study conducted by Brown et al. served as a good reference point for grounding the RMG vegetable box delivery live project (32). The former had been conducted by carrying out a comparison between the motivating factors of, and challenges faced by the customers of organic fruit and vegetable box delivery schemes in Central England as well as in Southern France. The researchers of this study developed socio-demographic profiles from the responses to the questionnaires, which had been devised for attitudinal assessment. The findings concluded that whereas the British respondents indicated they got involved in the box scheme out of "altruistic reasons", their French counterparts seemed to be driven more by motives of accessing quality and healthy fresh produce (32).

5.4 Methods

An email-based survey approach was considered to be the best method for gaining insights into the opinions of the shareholders with respect to RMG's vegetable box delivery scheme. According to Bell (33), though "[surveys] can provide answers to the questions What? Where? When? and How?, but it is not so easy to find out Why?". Hence, the questions in the survey revolved around the intentions the shareholders had when initially investing in the RMG, what their relationship had been like with the enterprise over the years, what their preferred modes of procuring vegetables were and what were the aspects that governed their decisions. The survey aimed to address indirectly a simple question such as "Why are you not buying the boxes?" in order to avoid confrontation with clients. As Yeo et al. explain, this type of question can be an effective probing mechanism despite its simplicity, but it can also appear to be somewhat confrontational (34). Therefore, an alternative route to eliciting responses for digging out the 'why' part can either make use of 'what' or 'how'.

The initial approach towards gauging the views and opinions of the shareholders was assumed to be one entailing telephonic semi-structured interviews. However, there were not enough telephone numbers listed against the 150 shareholders in the database to constitute a representative sample. As there were 123 email addresses found in the dataset, using online and anonymous surveys was determined to be the best possible option. The downside to this was that since the online questionnaire had to be structured, there could be no possibility for a back and forth style of questioning as is typical of telephonic semi-structured interviews. Hence open-ended questions intermixed with closed ended ones and either/or queries served to yield a data set that was used to paint a statistically significant picture that was nuanced with hues of varying opinions and sentiments.

A link to an online questionnaire was sent to all 123 shareholders in an email that introduced the research exercise and requested their voluntary participation. Since the size of the shareholder population was already relatively small, it was not necessary to randomly select the respondents. Baker et al. explain that similar to other kinds of research, non-random sampling can also assist researchers in making "inferences to the target population," and will reduce selection bias through the balancing of covariates, leading to survey estimates that will tend to "mirror those of the population" (35). Hence there was no picking and choosing involved in the survey respondents, and with almost one-fourth of the contacted shareholders responding, the acquired responses were considered by the RMG as providing substantial insight into the issues that it had asked the researchers to investigate.

5.5 Results and discussion

In attempting to explore the various facets of the dilemma faced by the RMG, parallels were initially drawn with the Brown et al. study (32). The first set of questions of the survey attempted to gauge the initial motivations of shareholders in getting involved in the project. The second set revolved around probing into the vegetable buying preferences of the shareholders, especially in the case of those that were not availing the RMG's vegetable box delivery. The final set of queries sought to determine the awareness of the shareholders regarding the various activities of the RMG, as well as to find out from within the respondents how many were actually availing the vegetable box scheme. Furthermore, the results were intended to serve as a baseline for gaining a deeper insight into the level of contentment, satisfaction or detachment of the responding shareholders.

Research Question 1: What were the original intentions of the shareholders for investing in the RMG?

Similar to the findings and conclusions regarding the motivating factors of the Central England respondents in the Brown et al. study (32), the surveyed sample of RMG's shareholders typically cited altruistic reasons, such as supporting local vegetable growing and organic farming, sustainable agricultural practices and contributing to the local economy, for engaging with the RMG initially. However, the only difference was where the former study's respondents were all existing customers of the vegetable and fruit box delivery scheme in question, the case of the RMG was a mix of both customers and non-customers, with the only common thread being their shareholder status. Hence, more than 52% of the RMG respondents indicated that it had been their desire to support local vegetable growing that made them invest. The relevant queries in the questionnaire were kept open-ended so as to elicit a breadth of responses, whereby adopting a "source-oriented approach" when drawing conclusions (36). For example, 45% of the surveyed shareholders even explained that it gave them a 'good feeling' knowing that they were supporting the local production of food. A basic question included at this stage in order to determine a satisfaction with the level of involvement with the RMG yielded a positive response from 59% of the interviewees. However, some had reservations; and these answers are analysed below under the third research question.

Research Question 2: Where are most of the shareholders sourcing their vegetables if not the RMG vegetable box scheme?

It was interesting to note that despite being RMG shareholders, the majority of the respondents were not even purchasing their vegetables from the weekly Riverside Farmers' Market, let alone subscribing to the vegetable box delivery scheme. Only a quarter of them, or 24%, were purchasing their vegetables from the RCMA farmer's market, which raises issues around intentions and practices of the shareholders and their involvement to support the regional economy and local vegetable growing.

Almost one-third or 31% of the respondents did state that they sourced their vegetables from the local grocer, but the produce they end up buying is largely not local and rarely organic. Moreover, the overwhelming majority in this group expressly stated that they opted for their local grocer due to better prices, friendly service and

convenience due to the proximity to their homes. However, at the overall level, more than half of the respondents indicated that they found the most convenience in shopping for their vegetables at the supermarket.

As expected, most of the shareholders making their purchases from the RCMA's Farmers' Market did so due to the open-air atmosphere and the face-to-face interaction with the actual growers of the vegetables (86%), as well as out of an affinity for fresh and good quality produce. These findings showed that one of the main challenges faced by the RMG to increase the uptake of vegetable boxes by shareholders is actually a case of creating "distribution channels to bypass the supermarket supply chain" as observed by Seyfang (31).

Research Question 3: What is the level of awareness regarding the vegetable box delivery scheme among the shareholders and what kind of opinions do they hold about the veg box scheme as well as about the RMG as a whole?

This research question was intended to test the subsequent hypothesis: a lack of uptake for the vegetable box delivery scheme was due to the shareholders not receiving sufficient information. The responses to the relevant questions in the survey form negated this hypothesis, as 97% of the queried shareholders indicated that they regularly received the RMG newsletter, with 83% having knowledge of the activities being organized as well. Yet, when it came to actually getting involved in such initiatives, only 38% showed any interest. Some suggested that in order to have more shareholder presence at the events, information regarding it should be disseminated 4-6 weeks in advance.

However, the bottom line borne out of this exercise was that most shareholders do not have time to become actively involved and therefore they are more prone to supporting the enterprise from a distance. Cox (37) also reinforces the notion that people who are motivated to invest or engage with CSAs are not necessarily keen on getting involved.

Regarding the delivery service itself, 79% of the responding shareholders indicated never having opted for receiving a vegetable box. Those that were getting it delivered were satisfied with the range of choice that they were getting and would be actively supporting it the year round. The survey also asked shareholders that were not part of the vegetable box scheme whether they even knew of its existence, to which 63% responded in the affirmative. However, when questioned as to whether they would prefer a seasonal box delivery/subscription so as to increase the outreach of the scheme, three quarters of them rejected the proposal and stated that it would not make much of a difference.

One-tenth of the surveyed shareholders also made some suggestions towards improving the scheme, recommending that the standard vegetable box could be modified for customers who are single and that they should be able to order the box online to be delivered when they needed it. One respondent also suggested providing cooking instructions online, while another one made recommendations for the RMG to become truly sustainable by having an on-site solar farm, growing indigenous trees and operating an electric delivery.

The findings of the online survey exercise definitely opened up avenues for further research. For instance, a second round of interviews could possibly be conducted with those purchasing the vegetable boxes to determine what motivated them to go from being simply shareholders to customers of the vegetable produce of the RMG. Judging from the responses, it was also apparent that the survey exercise itself had prompted the shareholders to reflect more deeply on the reasons for their involvement as well as the decision of signing up for the vegetable box delivery scheme, something that would be worth exploring in a follow-up round of questioning.

Conclusions:

a) Even though the shareholders are satisfied with the level of engagement with the RMG, there is definitely room for improvement.

b) The majority of shareholders, though espousing the values that of CSAs that the RMG was founded on, chose to do so only so that they could support a local enterprise from afar and not have to get into the hassle of receiving the vegetable box and then making sure they utilize all of the contents of it.

c) The initial investment was a number of years ago when the RMG was established. Hence the shareholders have now become detached from the activities and operations of the venture. A number of them are also residing beyond the delivery radius of the RMG and hence constitute a logistical problem in receiving the boxes.

Recommendations:

1) The RMG should have different delivery timeslots so as to accommodate customers who are working full-time, so that they can receive the vegetable boxes at their convenience.

2) More information regarding the vegetable box delivery scheme should be provided on the website.

3) The RMG should increase their social media presence via Facebook and Twitter, especially focusing on the importance of devising one's diet plan around seasonal produce, instead of sticking to favourites and so seeking the same vegetable ingredients the year round.

6. Conclusions and reflections

This document presents a specific initiative to change the food system through live projects with MSc students. The examples and the process of writing this document have allowed us to reflect on this experience. By and large these live projects are a way of reconnecting people and knowledge by embedding students in the real world, which fosters new linkages between academic and practitioner knowledge, and new connections among people that are actively aiming to transform the food system. For us, this experience might have different tangible impacts, but more importantly holds value for the stakeholders and therefore for society as a whole.

Value for students

Engaging with a live project that was close to home provided the student researchers a unique opportunity to interact in person with key individuals involved in creating a more sustainable food system. For example, in the case of the Riverside Market Garden, the students were able to make a site visit to the farm and get a feel for how the contents of the vegetable box scheme were produced.

The real world value of having such a research project as part of the module assessment is significant as this prepares student researchers to make informed decisions and plan accordingly when setting out to explore a live problem. It also puts them in a position to realise where the gaps lie and the areas that can be improved, thereby enhancing the quality and the outreach of the project. In the two examples described in this document, the student research groups were able to arrive at some takeaway realizations and recommendations from the experience.

There is also much to gain from the group work. Open communication amongst students is crucial, as it gives them a chance to describe their skills and knowledge, and to honestly reflect on what they can accomplish for the project. In this case of the RCMA food hub project, the students needed to set their own balance between learning new tools and learning new information. In this project, there was a decision to make between spending most of their time learning how to make a business plan,

or spending more time conducting interviews and literature review (desk analysis) to obtain critical knowledge for RCMA. The students decided on the latter. However, via the methods of the latter, they were able to gain some knowledge on business models as well. But overall, it was crucial for the students to have some leeway regarding the research questions and the methodology, given some guidelines and expressed wishes of the organisation. In this way, the students are motivated and feel more responsible of the project outcome. In fact, although not required and assessed, the students decided from the very beginning to write a report for RCMA, which the RCMA representative could then present to the RCMA board and other stakeholders.

As with any collaborative research project and presentation, the students gained several valuable experiences. As mentioned above, they learned how to appreciate one another's strengths and weaknesses by communicating openly and balancing the workload accordingly. For example, in the RCMA food project, one student excelled at making timelines and action plans while another enjoyed performing an extensive literature review. In terms of gaining new skills, at least one of the students in the RCMA food hub project learned how to approach community stakeholders and conduct semi-structured interviews; and two of them learned a new presentation tool, Prezi, thanks to the expertise of the third student.

Value for the organisations

There are many potential benefits to organisations that propose live projects and partner with students, as we have shown above. In some cases, the utility of research results may be limited for the organisations in terms of responding to the original questions posed. For example, in the food hub project, the students did not research the potential of CAT, market research, and business plan. However, the process of generating research questions, collecting and analysing new data always generates new insights and ideas in the organisation; not least fostering reflection on the challenges they are facing. The expected level of gains from the process, however, should be realistic. Indeed, as the food hub project has demonstrated, perhaps the topic of the project should be more or less a flexible and developmental idea for the organisation, and is not directly affecting the livelihood of the organisation. For example, if the students were given the responsibility to examine the potential CAT properties for the food hub, they would not have had enough time and the expertise to complete the task. And if RCMA was solely relying on them for the task, it might have missed out some opportunities to jumpstart the CAT process.

One way to maximise benefits for both parties is to have a meeting between the students and stakeholders where both parties are comfortable to discuss their visions and knowledge, and collectively decide on a common goal and approach. In the case of RCMA's food hub project, an early meeting with the RCMA representative provided an in-depth account of the organisation's context behind the food hub concept (what has been done, what is left to do, etc.), as well as the realistic goals of the organisation. This information was tremendously helpful for the students to move forward by establishing an appropriate action plan. And equally importantly, the students were able to observe from the representative that RCMA was serious about the project, thus they became extremely motivated to make an impact for the organisation. This meeting led to modified research questions that suited the organisation's needs and dovetailed with the capabilities and learning interests of the students.

Value for the faculty

The process involved in coordinating the live projects is based on a close relationship and collaboration with the local food scene. In our view, this constitutes a prerequisite in order to be able to identify and gather proposals from different institutions and organisations. In many cases, as the Food Research Collaboration initiative shows, there is a demand for academics to get involved in spaces of deliberation as well as to support studies demanded by organisations with limited resources. Opening up this participation to students not only allows the faculty to tackle more issues and provide support, but also becomes an instrument to democratise knowledge and offer

opportunities for students to experience first-hand the challenges involved in building more sustainable food systems.

Notwithstanding, managing expectations from both sides - organisations and students - is always challenging. On the one hand students perform differently; some of them devote time and energy to these projects while others consider it just another assignment in their module (fair enough!). This and other factors influence the quality of the final results. On the other hand, some organisations devote more time to the students than others, and are able to keep them more motivated - for instance, by showing the impact of their live project or giving them access to data, sites, etc. This can become particularly tricky when there is an assessment involved and therefore different levels of involvement by the organisations should be considered in the marking process. Once more, the constant interaction with the practitioners and students - including devoting time in lectures to tackle issues with the live projects - is key. Furthermore, providing materials beforehand around action-research processes is also important.

In the current academic career there is an enormous pressure to produce high-impact factor publications and attract research grants, and therefore it is key to find creative ways to collaborate and promote other values inside our universities, not only among colleagues but also among potential future academics such as the MSc students. Coordinating and supporting these live projects offers a tool to reflect on academic practice and our role in building a fairer society, as well as pushing institutionally for a more engaged academia where open and different knowledge areas and collaborations are valued. Consequently, these projects can contribute to academic debates on specific topics such as food studies but also contribute to the methods and practices that allow transformations in the food system. Organising these activities can be part of the faculty's personal and professional mission to contribute to changing the food system and all of us that are part of it.

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ISBN 978-1-903957-07-3

Moragues-Faus, A., Omar, A. and Wang, J., 2015, Participatory Action Research with Local Communities: Transforming our food system. 18 November 2015. Food Research Collaboration Policy Brief.

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