Online Action Research in the Time of
COVID

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ONLINE ACTION RESEARCH IN THE TIME OF COVID

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Abstract

Between 2020 and 2021 severe restrictions were placed upon travel and movement within the UK because of the Covid-19 pandemic. New rules governing the composition of meetings meant that researchers who had planned to employ Action Research had to rethink their strategies. The planned field research, a fundamental part of this inquiry, had to be reassessed to take into account the restrictions on individual and group meetings. These changes affected how the researchers could set about the inquiry and led to the exploration of technology-based communication systems as the means of undertaking the field research. In this paper we recount the technologies that were considered prior to the field study, and the experiences and lessons learnt from a pilot study in which these technologies were used with a soft method of inquiry. This was a new experience for all concerned and a thorough thought process had to be put in place, but one that provided valuable guidance on how to undertake a field study with a degree of confidence where face-to-face contact is not possible.

Introduction

The main field research was set up to learn about the mix and range of factors that affect the local community's food access and provision as part of an inquiry into the notion of 'food deserts'. Food deserts are known as populated areas with no or limited fresh food access; or as 'populated urban areas with no access to healthy and affordable food for residents' (Beaumont, Lang, Leather and Mucklow, 1995 cited in Lu and Qiu, 2015; Cummins & Macintyre, 2002; Wrigley, 2002). Its first reference was in a government publication for the then governments Nutrition Task Force (Beaumont et al., 1995, cited in Cummins and Macintyre 2002, p. 436), as an outcome of a policy working group called Low Income Project Team in 1995. (ibid; Wrigley 2002).

Simply stated, the research was designed to explore different stakeholder perspectives on the nature and consequences of unequal access and provision of fresh fruit and vegetables to the Portsmouth community. The chosen method of research was action research and the method of inquiry was the Appreciative Inquiry Method (AIM) (Stowell 2012). The Covid-19 restrictions on meetings prevented face-to-face contact meaning that the field research would have to be redesigned. An alternative way of using AIM had to be developed and tested before the main field study could be undertaken. The restrictions created a dilemma for the researchers because the time budgeted for this essential section of the research still had to be maintained. Doubtless similar pressures have been experienced for all forms of research over the past year and lessons learnt in this study could be valuable for other similar research.

The purpose of this paper

The purpose of this paper is to describe the investigation made into the possible use of Information and Communications Technology (ICT) to support an action research field study. The decision to use ICT was made because of the restrictions prohibiting personal contact during the Covid-19 pandemic. In this paper we report on the way in which this alternative approach to action research took shape and how some ICT platforms were tested for their suitability for use for soft action research. The lessons learnt would help to prepare for the main field research and might also provide some valuable practical lessons and insights for carrying out action research entirely online. In the following sections we will discuss some of the insights and reflect upon their potential benefit for the main field study.

Action Research – The Lancaster model

The decision was made to capitalize upon the vast experience, gained over several decades of organisational inquiry, from the Lancaster University's 30-year programme of research (see Checkland 1999). This kind of field research, let us call it soft action research, involves the inquirer to engage directly with those involved. That is to say they seek to gain first-hand experience from within the area of concern and create a virtuous cycle of learning (see Checkland, 1999, p. A4). This approach is based upon Susman and Evered's notion of action research where *"...Knowledge is gained dialectically by proceeding from the whole to its parts and then back again"* (Susman and Evered, 1978, p.595), *Figure 1* below.
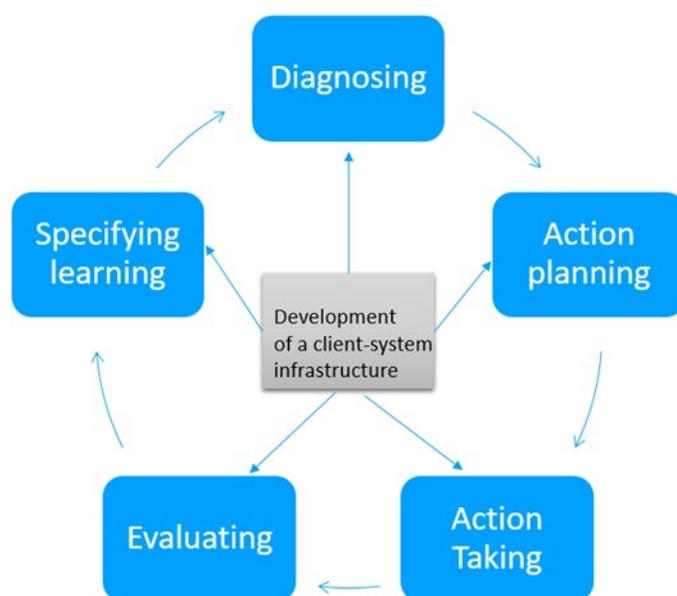
Figure 1 - Action Research Cycle of Learning, adapted from Susman and Evered (1978, p.588)

Covid regulations prohibited face-to-face contact but nevertheless, based on the findings from a previous exploratory field research into the driving factors of urban 'food deserts', the researchers decided that the research would be richer if experiences and opinions could be obtained from within the local community. The restrictions in personal contact created practical difficulties that could not easily be solved within the restricted time scales of the project. This was particularly the case

for using soft methods of enquiry. Although the original intention was to use Soft Systems Methodology (SSM) for the field study, the restrictions would make this a difficult undertaking. Whilst SSM is a powerful means of inquiring into 'complex' and 'messy' situations and "…provides the process for bringing about change, AIM is intended solely as a means of finding out what is considered to be the case in a given situation" (West, 1995, p.144). The earlier exploratory field research had already suggested issues that could be addressed, which is the starting point for the AIM (see Stowell 2021).

AIM was considered appropriate and to be adopted. The next challenge for the researchers was whether AIM could be supported by technology?

Applying the Method

Paradoxically, the Covid-19 restrictions provided the researchers with an opportunity to explore new ways of undertaking action research using ICT. It also held the promise that in undertaking action research in this way, it might surface lessons that could be valuable to other action researchers.
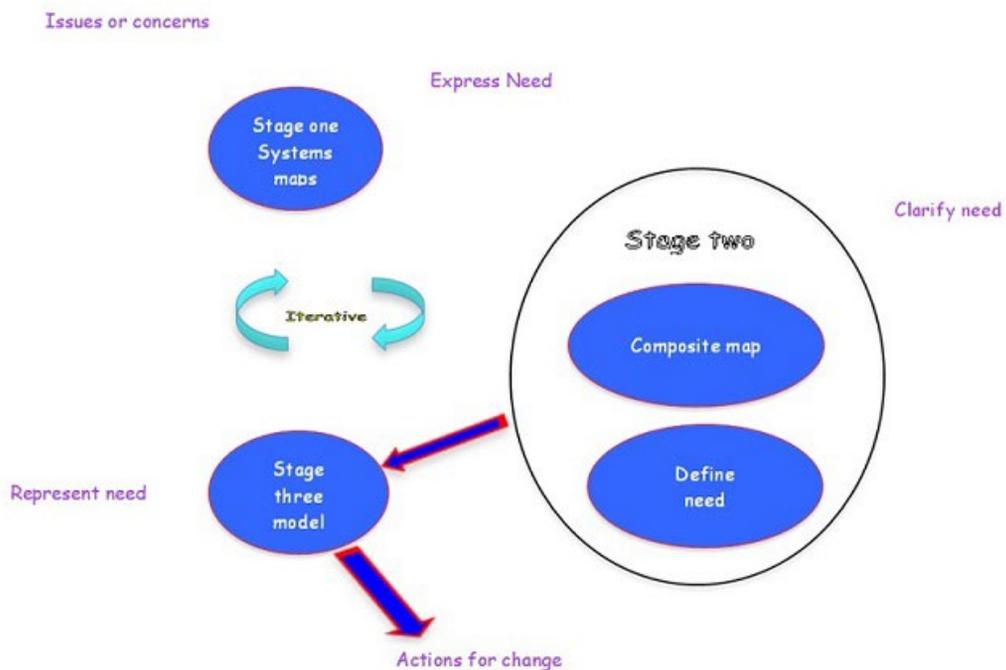

Figure 2 – Appreciative Inquiry Method (AIM) diagram with stages, (Stowell, 2021)

A schematic of AIM is shown in *Figure 2*. It should be noted that the lessons learnt from the pilot study refer to phases which can be assumed to be the stages indicated in the diagram.

The use of ICTs suggested a way forward which would enable a form of contact without transgressing the Covid rules in force at the time. This meant rethinking the way in which the method could be applied. Different platforms were explored to find one that could provide virtual contact but supported and maintained the key elements of AIM. The lessons learnt from the pilot study and the influence it had upon AIM would be valuable in the main field study. The pilot study is discussed below.

Setting up the pilot study

<u>Selection of participants</u>

The pilot study was conducted with a small group of PhD students from the University of Portsmouth. Our purpose was to test the ICT platforms and learn about its adaptation for use in action research, in particular its use with AIM. The pilot study was to explore the experiences of using the approach within the Post-Graduate Research Students (PGRS) at the Faculty of Business and Law. The question we asked the participants to consider was: *'How can research environment and culture for PGRS at UoP be improved?'*

We used purposive sampling to recruit participants for the pilot study, representing the diverse group of PhD students from the Faculty. We attempted to get a limited but representative sample of identified key criteria and experience to discuss research culture and environment. The criteria considered included the following:

- Full time and part-time PhD students;
- On/off campus PhD students;
- PhD students from four out of seven different subject groups from the Faculty of Business and Law,
- PhDs at different stages of their PhD journey;
- At least one participant in position of a student representative role.

N.B. This study provided some interesting insights into the way that this group viewed the research culture in the school[1] but the outcomes are not entirely germane to the research reported here. For this report we will confine it to the suitability of various ICT's for action research.

Investigation of ICT platforms

The platform had to satisfy four basic needs:

- the needs of the facilitator to support the requirements of the method employed;
- serve the needs and convenience of a diverse stakeholder group with different levels of technical skills;
- serve the needs of the group as a whole within a dynamic setting to simulate the experience of face-to-face interaction;
- the chosen platform should be user-friendly, available and easy to use.

These requirements made it necessary to evaluate several platforms and carry out tests before involving any participants in a pilot study. It should be noted that what might seem to be the best choice from a technical perspective does not always gain acceptance in the real world. This is especially the case if the participants are unfamiliar with the software or find it difficult to operate (e.g. not user-friendly interface or intuitive platform).

There exists a number of online platforms with various features that might be suitable for our research. However, we were unaware of any papers about ICT platforms used in action research. Stowell and Cooray (2017a) had explored the use of ICT (using Wiggio, which is no longer available) in an earlier study in remote group settings, but this was before the limiting factors of face-to-face meetings in force in the UK at the time of this study. During Covid-19 pandemic the use and demand of ICT platforms for education, work, and leisure rapidly increased because of the Covid restrictions leading to increased numbers working from home. The increased use impacted on the availability of ICTs. During the testing period, the high demand resulted in some limitations on certain features on some of the platforms. For example, interface or a full range of features varied from

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[1] A summary of this exercise can be found in the internal publication of the outcomes of Operations and Systems Management. See internal record of the pilot study.

trial versions to fully licensed ones. Consequently, this affected the selection and availability of the most suitable ICT platform for the research.

Video-conferencing platforms that were considered ranged from commonly known and freely accessible ones (e.g. Skype, WebEx, Microsoft Teams, Google Meet, Zoom), to online collaboration tools or noticeboard platforms (e.g. SamePage, Conceptboard, Google Groups, Padlet). It must be noted that there was a limitation of platforms that were available and provided via the University of Portsmouth to the facilitators, which influenced the testing period[2].   Some platforms were eliminated because these platforms were lacking particular features that could accommodate AIM. The majority of platforms explored were meant for team collaboration for professionals' and practitioners' purposes (e.g., on a shared document, database etc.), which ruled them out for this research where human interaction, body language coupled with verbal communication can be meaningful. There was also a mismatch of features and usage in practice. It was found that collaboration platforms with visual interface and tools were not synchronized with videoconferencing in real time with instant changes (some platforms had time lags), or they did not have the option. A combination of platform and online collaboration tools or noticeboard platforms were tested, but none were found to be satisfactory for the facilitators or participants.

Testing Platforms against research requirements

As mentioned above several platforms were tested that included video-conferencing platforms and online collaboration platforms all considered capable of 'capturing' expert opinions. The selection of ICT platforms was scoped down to the following: Google Meet (GM), Blackboard Collaborate (BC); and later Zoom and Padlet. The choice of platform had to be able to accommodate online individual and group discussion and enable the creation of Venn diagrams in real time and on one screen. Of the available platforms tested at that time there was no single candidate that would satisfy all these requirements[3].

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[2] Whilst the aforementioned platforms were freely available, ICT platforms requiring the purchase of a license were explored based on the word-of-mouth and use in academia and research. Blackboard Collaborate (BC) was one of those considered in this testing period, but it was not freely available to the facilitators and hence why only a trial and licensed version was tested.
[3] Zoom and Padlet were used once access was granted by the University of Portsmouth to the facilitators.

Eventually a compromise had to be reached. The criterion was now to find an online platform that would work best for the facilitators as well as for the participants bearing in mind that not all participants would be experienced or possess the technical skills to learn and operate the chosen software. The choice was to find a platform that was simple yet sophisticated enough to allow the researcher to collect all necessary 'expertise' without using more than one ICT platform.

Initially Blackboard Collaborate (BC) was selected because the tests showed it outweighed all the other platforms and fulfilled most of the requirements. The trial version was advanced (e.g., wide array of rooms and purposes from research, lecturing to collaboration use), but it was also limited on several key aspects (e.g. inability to invite attendees via generating a link, required registration and sign in). The license version was more time-efficient and practical. It also saved the participants 'time by avoiding any additional work/registration required. Unfortunately, when using the licensed version, it was found to be limited with reduced features. Some of its functions were different from the one tested (e.g., ability to switch between shared files and whiteboard without losing data) and switching between contents (e.g., shared screen and whiteboard with created annotations) resulted in a loss of data, in contrast to the trial version.

Further tests were made in order to establish the platforms capability to facilitate online meetings and accommodate the participants' feedback. We found that GM provided a stable performance and because its interface is similar to Microsoft Office it increased the confidence of the participants. A decision was made to base the pilot study around GM because it was simple to use and generated a user-friendly environment.

We also evaluated Padlet, an online noticeboard platform for synchronous (run in real time) and asynchronous sessions (reflection within extended time period) which proved itself to be a useful tool for authentication of participants' opinions. Padlet was consequently added to the 'tool kit' as a mid-step between phase 2 and phase 3.

From learning and feedback gained from phases 1 and 2 and from Padlet, modifications and more tests were made to facilitate further online meetings. Whilst there were overall outweighing benefits to use GM as an online platform in

AIM study, there were some downsides that showed in the pilot study's online group meeting and not during testing. For instance, the inability to see all participants while sharing the content meant that it was not possible to make sense of 'silences' or to witness the effects of body language on other participants. Only assumptions could be formed. The importance of an online platform and its role and impact on the discussion in an online environment is therefore emphasised here. At this point of research, Zoom licensed access was granted to the researchers by the University, and further testing could take place. In this case the researchers decided that Zoom would be explored and tested further as a potential substitute for face-to-face meetings, since both BC and GM were not entirely satisfactory for the selection of platform.

The outcome of the testing of platforms was the decision to use Zoom and Padlet as they seemed to offer the best alternative to the face-to-face environment needed for the main field study. Zoom was used for all synchronous meetings, while Padlet was used for asynchronous feedback in between phases for authentication.

Practical insights and lessons learnt from the pilot study

The pilot study was conducted in three main phases as follows:

- Phase 1 (AIM Stage 1) – Individual systems maps
- Phase 2 (AIM Stage 2) – Individual encounters for composite map
- Mid-step for asynchronous online collaboration to prepare authenticated materials (composite map and definitions) for phase 3
- Phase 3 (AIM Stage 3) – Online group meeting to develop activity models

Besides the importance of an online platform that was emphasised above, the pilot study provided other valuable lessons and insight into the application of AIM entirely online. These are discussed below.

Lesson 1: The importance of boundary
The notion of boundary is fundamental to any study and particularly so for soft A/R (see Stowell and Welch, 2012, pp.4-7; Checkland, 1999, p.174; Ulrich, 1994, p.244). It is essential to note that its importance is not diluted because the participants are not physically present. Because of the relative ease of recruiting

participants (who can take part from the comfort of their home) the temptation to recruit a large number of participants just for the sake of it should be resisted.

The importance of boundary and its significance became clear as the pilot study progressed. By thinking about the scope of the study and its limitations will help to consider the kind of participants that might best help in the understanding of the situation of concern. For example, in hindsight it was clear that not all stakeholders[4] were invited that could have added valuable insights and knowledge about the question posed.

The inclusion of boundary is also clearly identified within an AIM study, and this is equally important when carrying out a study in a virtual environment. We suggest that the boundary can be reviewed in the same way as for a face-to-face study, by employing the mnemonic PEArL. PEArL consists of 5 elements: P-participants; E-engagement; A-authority; r – relationships; L – Learning (for a full account see Stowell, 2021; Stowell and Cooray, 2017b; Champion and Stowell, 2003). We found PEArL invaluable in this inquiry particularly the PEA in PEArL, i.e., who is included who should have been included and who might have been better not to be included. It helps to think about the impact that the participants might have upon the findings both before and after the study. Establishing a boundary helps reduce the possibility of diversions to irrelevant areas/topics. For example, we noted that some participants tended to speak outside the pilot study's boundary bringing in their own issues and experiences and think about other 'systems' leading to loss of focus.

Lesson 2: Observation of individual vs. group dynamics in online sessions
Phases 1 and 2 were conducted with individuals and, importantly, with the minimum interference from the facilitator. In an online environment this is more complex than in the face-to-face situation involving soft methods where group interaction is important as a means of engaging participants. In the online application of AIM we found that discussions benefited if each participant was given the option of being anonymous. This proved valuable especially in the early phases of AIM. However, even in a virtual environment we noted that dealing with

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[4] Faculty Research Degree Coordinator, Departmental Research Degree Coordinators for each Subject Group at the Faculty, supervisors 'representative, student representatives from each Subject Group, Administration team for PGRS, Graduate School representative were considered for the pilot study. However, their involvement was infeasible because of the time restrictions. This has shown in the actual pilot study that input of these stakeholders mentioned above in terms of provision of support, services and facilities (amenities) according to mode of study are vital and should have been included.

non-homogenous groups still has the potential of influence and dominance of certain groups.

It is important to note that allowing discussions, especially in 1-2-1 sessions, can have a negative impact on time. Time became an issue in all encounters and went beyond suggestions in the literature regarding approximate length of meetings (the timings were derived from 'normal' face-to-face encounters). It was noted that online group dynamics were different from the individual 1-2-1 setting, and possibly from face-to-face meetings. Initially participants were reluctant to converse, and it took time for them to relax and begin to engage. The study then changed from being reactive, with the facilitator actively leading, to one where the participants began discussing the topic amongst themselves. It is also worth noting that the occasions when we were joined by an observer it seemed to affect the group dynamics and the way they worked.

Lesson 3: Use of visual tools in AIM – Systems maps, Composite map, Activity models
It was found to be helpful if the participants are given a brief introduction of how to use the software. It is worth noting that this became a part of the 1-2-1 sessions where any participant who did not feel technically skilled enough to make modifications and changes him/herself was given support. Examples and demonstrations of the session outcomes and expectations became crucial in order to explain the purpose of each session (particularly phase 1), but especially so for phase 3, where activity models might have been puzzling even to academic participants or those new to 'Systems'. It is recommended that a simple, easily understood example from everyday life, is given prior to each phase.

Lesson 4: AIM language and 'systems' terminology
It was noted that there was some confusion and misunderstanding with the use of 'Systems' terms and the names of some of the activities in AIM e.g. Systems Maps. It is likely that using soft action research will be unfamiliar to most researchers but also the 'new' environment of inquiry online may have been a factor, too. An effort to use simple language is recommended, especially in the 'international environment'.

Explanation and guidance were helpful to participants in the phase 2, as was the individual discussion that seemed to help them to stay focused, on topic and to clarify any differences in their examples.

Conclusion

In conclusion, there are number of lessons learnt throughout the employment of action research in the online environment. The Covid-19 pandemic with the moratorium on face-to-face encounters and increased number of people working from home created challenges as well as opportunities to action researchers and soft methods of inquiry. The advantages and disadvantages of each platform were considered and tested on the pilot study. What might have seemed to be the best choice of technology in theory may not necessarily be the same when it comes to practice. Some platforms that appeared to fit all the research requirements, such as being user friendly and convenient for participants were judged to be impractical. There were also platforms that did not deliver or did not allow the researchers to use the listed features or benefits as promised upon the purchase. This experience was part of the continuous cycle of learning gained from both the process of online inquiry and the application of AIM. We believe this paper highlights some useful lessons for other research applying soft methods of inquiry online.

Implications for future research

Whilst the Covid-19 pandemic and its restrictions affected various types of research, it has also created opportunities to explore alternative strategies to undertake field research, using ICT platforms. This study has indicated that similar research may benefit in some form to be conducted online, partly or fully, to overcome certain limitations. For instance, the use of ICT platforms for soft method of inquiry has offered an alternative choice that is more economic and in some cases more time efficient (e.g. no commuting or travel costs) for undertaking field studies. It may also hold a potential to be used for international projects. But we draw attention to the importance of boundary setting to avoid creating a large community of participants that may be difficult to 'manage'. However, flexibility and adaptability of such field research should be considered with its extent of changes that may be limited for online collaboration and research by the available software.

An investigation into a hybrid approach for field research, combining face-to-face and online action research, might be a way forward. It should be borne in mind that

the balance of benefits and drawbacks from each approach may require a compromise at certain aspects.

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