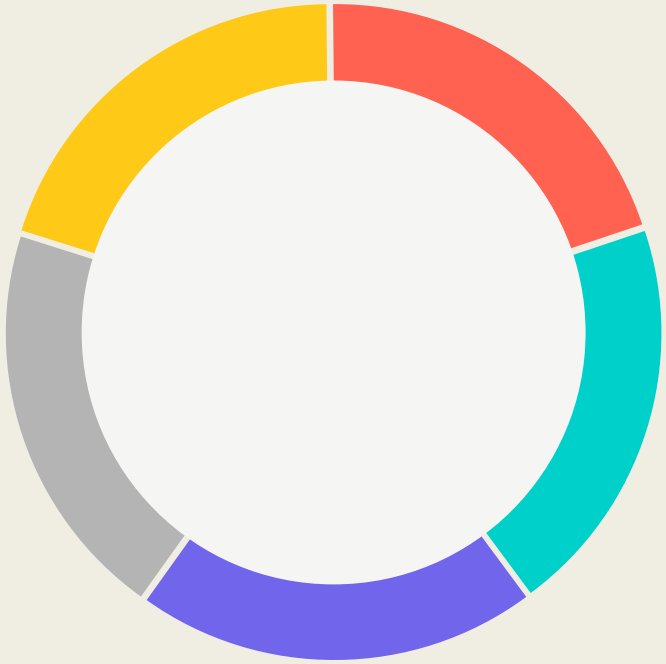

RAPID-CYCLE DESIGN AND TESTING

WHAT, WHY, AND HOW?

January 2021

DARTINGTON SERVICE DESIGN LAB

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Suggested citation: Green, F., Lowther, K., Simpson, D., & North, J. (2021). *Rapid-Cycle Design and Testing: What, Why, and How?* Dartington Service Design Lab.

TABLE OF CONTENTS

1. ABOUT DARTINGTON SERVICE DESIGN LAB

Dartington Service Design Lab is a research and design charity focussed on using evidence and design in innovative ways to help those working with children and young people have a greater impact. Our team of researchers and specialists are skilled in service design and improvement methods, systems thinking approaches, and data visualisation and communications. As an organisation, we have more than 50 years of experience working across the public and voluntary sectors.

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2. INTRODUCTION

THE NEED

At Dartington Service Design Lab we work with organisations who are keen to improve what they do, and they know that being able to understand their own data is crucial to this. But which tools should they use? Organisations delivering services to children and young people have for years been encouraged to invest in summative impact evaluations. These are typically expensive, lengthy and can feel dauntingly high-stakes. What if after all that effort and resources, you find your service 'doesn't work'?

They also require an organisation to operate at a 'steady state' while the evaluation runs. This feels frustrating and unhelpful for an organisation which senses their most pressing need is to *change* what they deliver in pursuit of greater impact. And, if they are going to change, they need timely data to understand if adaptations and innovations are working out as they expected, or need to change again. Traditional impact evaluations cannot support this understanding.

We believe these organisations need concrete, tangible methods that help them make decisions, and track the effects. This report explains how we try to do this through rapid-cycle design and testing.

OUR METHOD

We are not the first to be interested in supporting organisations working in complex environments to learn and improve, and we have drawn on many disciplines to shape our method. We've been able to look to Dartington's scientific heritage, *and* our long experience of working alongside those actually delivering services.

Implementation science has helped us consider how to use evidence in practice to support high-quality delivery. From the ways in which practitioners are trained and supported, through to different approaches to leadership and communication, the field offers strategies organisations can use [1].

We are also influenced by **theory-based approaches to evaluation**. Two particular approaches, Theory of Change and Realist Evaluation, have provided us with the tools to better support decision-makers by considering not just 'what works?', but 'what works, for whom, and under what circumstances?' [2] .

These methods have contributed a lot to what we do, but we have learnt from experience that they can be extractive. The researchers' priority has often been on taking data away, analysing it, and then returning later with a polished report of high-quality evidence - which those delivering services can't use, because it comes too late, or lacks understanding of the organisation's context. Academic theories have been placed at the heart of service design, sometimes at the expense of the experiences of practitioners and those using services – often resulting in services which might work in theory, but don't in practice [4].

In recognition of these problems, other approaches have emerged and gained traction, and we are able to draw on those too. **Improvement science** - specifically the 'Plan-Do-Study-Act' method developed within health care quality improvement - has shaped our belief that learning can and should contribute to better outcomes. In particular, we have taken the principle that small, quick and frequent testing is more helpful than infrequent, big and slow tests [5]. We also draw on the concept of successful failures, where sometimes the most valuable learning comes from unexpected findings, and tests that did not go according to plan.

Systems thinking approaches help us to look beyond individual interventions and services, to the broader context in which they sit, and which can undermine or enhance their impact [5]. **Service design principles** of participatory, inclusive exploration and decision-making help us value and draw on the experiences of practitioners, families and communities [6].

We have developed a method that attempts to take the best from these perspectives, to create something that incorporates user-centred and science-based design, improvement methods and systems thinking. Alongside these, our rapid-cycle design and testing method depends on creativity and imagination – that of our team, of the organisations we work with, and of the people they serve – to spot problems, identify possible solutions, put them into practice, and learn what happens next.

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[1] Fixsen, Dean L., et al. *"Core implementation components."* Research on social work practice 19.5 (2009): 531-540.

[2] Pawson R, Tilley N. Realistic Evaluation. London, England: Sage Publications Ltd; 1997

[3] Prestwich A, Sniehotta FF, Whittington C, et al. (2014) *Does theory influence the effectiveness of health behavior interventions?* Meta-analysis. Health Psychology 33(5): 465–474.

[4] Berwick DM *Improvement, trust, and the healthcare workforce* BMJ Quality & Safety 2003;12:448-452

[5] Bronfenbrenner, Urie. *"Ecological models of human development."* Readings on the development of children 2.1 (1994): 37-43.

[6] McKercher, K. A. (2020). Beyond Sticky Notes. *Doing Co-design for real: mindsets, methods and movements*

3. WHAT IS RAPID-CYCLE DESIGN AND TESTING?

Rapid-cycle design and testing is a method to develop, design, test, refine and improve services. It is a flexible approach for evaluation that uses a series of small, iterative tests, and what organisations do with the results of these tests is as much a part of the process as the results themselves. The tests can last weeks or months depending on what it is the organisation is trying to learn.

Researchers and service delivery organisations are adopting and adapting rapid-cycle methods in many countries. At Dartington, we have developed a five-step method that aims to combine research evidence with the perspective of users and staff in both the design and testing phases.

When Dartington Service Design Lab was born in 2017, we knew that rapid-cycle design and testing would play a central part in the organisation's work. As the Dartington Social Research Unit we had pioneered and advocated for 'Standards of Evidence' and that randomised controlled trials be used to evaluate social policy and service delivery to children and young people.

We believe that carefully designed and managed randomised controlled trials have an important role to play in understanding impact of well-developed and refined services and contributing to wider bodies of knowledge from which others can learn from. However, we have learned through experience that too often trials are undertaken too soon, frequently at great cost and challenge, and that they are not always the right method for organisations with whom we work, at least during the more formative stages of service design and optimisation.

Often, organisations need an approach which provides feedback they can use to understand the quality of their delivery, and whether their service, or parts of it, are making the difference they think it should. Discovering this helps organisations plan what to do next to improve what they do and how they do it. Going through this intentional process protects against ad hoc changes to service design or delivery – where these changes are unavoidable the rapid-cycle design and testing method allows testing to explore what the effect of these changes are.

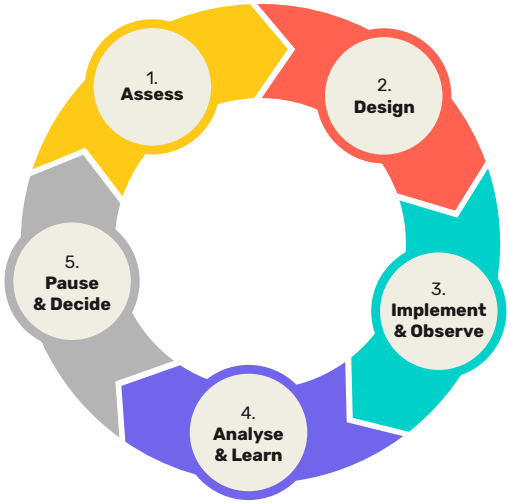
[7] Axford, N., Berry, V., Lloyd, J., Hobbs, T., Wyatt, K. (2020). *Promoting Learning from Null or Negative Results in Prevention Science Trials*. Prevention Science, https://doi.org/10.1007/s11121-020-01140-4

4. ABOUT THIS REPORT

This report provides an accessible introduction to rapid-cycle design and testing, using case studies of projects we have worked on over the past three years. These projects were developed in partnership with organisations which see value in using iterative, learning-focused methods to improve their services. We also share our own learning from these real-world projects, and how this learning has shaped the evolution of the method.

We hope this report will be useful for large and small delivery organisations, and those that fund them. In our rapid-cycle design and testing projects, Dartington bring valuable experience and skills, but the organisations themselves are active decision-makers at every step. By reading about our experiences they can understand more about the decisions they would be making, and the resource and capacity it would require.

We believe that organisations can carry out their own rapid-cycle design and testing projects, in a way that is not possible with some other evaluation methods. Whether a specific organisation can depends on its culture, and on the skills and capacity of staff. In many cases, and particularly where this method is new to an organisation, it is more realistic to work with an external research partner like Dartington. However, this report should give an indication of both what it takes to implement rapid-cycle design and testing with external support, and what would be required to deliver this method 'in-house'.



5. INTRODUCING THE PROJECTS

Click on any of the project titles to take you to their respective resources and reports pages.

MY FUTURE CHANCE UK

My Future is a 9-month mentoring service developed by Chance UK for children aged between 5 and 12 years. The service aims to enhance children's social and emotional development as a way of reducing their behavioural problems. Each child is matched with an adult volunteer from their community who acts as their mentor and a positive role model.

Mentors hold individual weekly sessions with children, teaching them strategies for setting and achieving goals, increasing self-confidence, and managing problems and negative emotions. They also support them as they work with other mentees in group sessions to practise their new skills. Between 2018 and 2020 Chance UK and Dartington Service Design Lab collaborated to design, implement, learn about and refine the My Future service using rapid cycles.

ADAPT FAMILY NURSE PARTNERSHIP (FNP)

The Family Nurse Partnership (FNP) is an intensive home visiting programme for first-time, young mothers from early pregnancy until their child's second birthday. FNP offers structured home visiting delivered by specially trained nurses, aiming to support young mothers (and fathers) in providing competent and sensitive care for their children, adopting healthy behaviours and planning for their own futures.

Dartington was commissioned by the FNP National Unit to work on a project alongside FNP teams and other stakeholders. The project set out to adapt the original service in two ways. The first adaptation gave family nurses greater flexibility to personalise the service for young parents: adjusting the frequency of visits and the content of the sessions according to client need. It also gave nurses the option to decide when a young parent can 'graduate' from FNP, between their child's first and second birthday, acknowledging that some are ready sooner than others to transition to less intensive support through universal services. The second set of adaptations focussed on certain aspects of the service's clinical content and delivery (smoking in pregnancy, breastfeeding, neglect, intimate partner violence, attachment and maternal mental health). The collaboration concluded in March 2020.

HOTHOUSES FOR INNOVATION CRISIS

Crisis is the national charity for homeless people dedicated to ending homelessness by delivering life-changing services and campaigning for change. Crisis offers their members (i.e. service users) education, employment, housing, arts and wellbeing services at Skylights (I.e. centres) across the UK. The Hothouses for Innovation initiative is a partnership between Crisis and Dartington Service Design Lab that lasted from 2017 to 2020. The overarching aim of the three-year initiative was to improve Crisis' services for its members by bringing together human-centred service design and rapid-cycle testing techniques across three selected Hothouses.

6. WHEN SHOULD ORGANISATIONS USE RAPID-CYCLE DESIGN AND TESTING?

We believe that rapid-cycle design and testing is a useful, and relevant method for organisations at various developmental stages, with various questions they need answering. In our work, we have supported:

- Organisations considering an entirely new service, and wanting to understand its design, implementation and outcomes from the start.
- Organisations that have been delivering a service for some time, and now want to adapt it and test whether, how and with whom these adaptations can be implemented successfully.
- Organisations considering external evaluation in the future but are wanting to optimise the design and delivery of their service before this.
- Organisations that have been externally evaluated and have identified weaknesses in design or delivery that they wish to address.

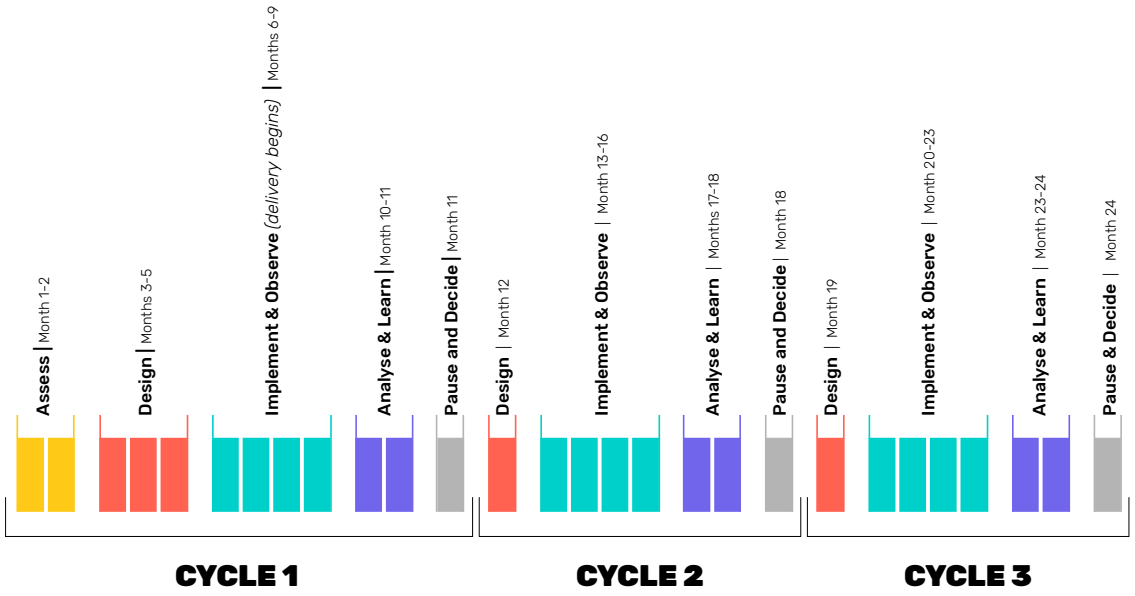
It is clear that rapid-cycle design and testing sits alongside other evaluation methods, and is often used to either improve a service before more formal evaluation, or in response to evaluation results. It is important that organisations are clear what their aims are before undertaking rapid-cycle design and testing. This clarity will guide work at every stage in the project, as well as communication inside the organisation and with external stakeholders about why they are taking this approach, and what their learning aims are.

7. OUR METHOD: FIVE STEPS

As depicted below, our method includes five different steps, which are delivered in cycles. The first cycle for all rapid-cycle design and testing projects includes all five steps, but subsequent cycles would draw on which ever step was needed to inform the next. In our experience, some design steps after the first cycle can be very short, as data from the previous cycle suggests only small tweaks to design or delivery are required. A service designed to make improvements to an intervention of 12-months duration might look like this:

In a two-year period this has allowed for three cycles of testing and learning, with subsequent design and implementation steps allowing organisation to respond to learning. Testing a shorter service would require less time, a longer service would require more – though in both, learning is generated, and used, *during* the project, and not just at the end.

Across the chapters, we will go into more detail about what happens in each step.



STEP ONE **ASSESS**

The Assess step is for organisations to **understand the context** in which their service is, or will be, delivered – via research and reflection.

Questions organisations ask at this step include: What are the problems facing the people we work with – and how can we understand more about them? What would they like to happen to address the issues they're facing? What are other organisations doing to tackle this problem in other places?

It is also important for organisations to assess their own track record – what are the characteristics of those people they have served in the past, what were their experiences of and outcomes from previous services, and where is there room for improvement? What can practitioners tell you about the parts of their practice that should be kept, and what should be changed?

These questions lead organisations to talk to people they have served, and their staff, as well as to look at their own data, and that of peer organisations. Assess also includes looking at the scientific evidence on which services and practices have been found to be effective (or not) in tackling the same problems, in similar populations and in similar contexts. This may include systematic reviews and meta analyses, but also reviews of process evaluations Theories of Change, and 'best practice' guidance from organisations like What Works Centres.

Carrying out this work during Assess means that the project team, and other stakeholders can develop a Theory of Change for the new, or adapted service which is informed by their experience and research.

There is a lot of guidance online about how to develop a Theory of Change. When we work on rapid-cycle design and testing projects what we think is important is:

- decisions are made about who the service is for, what outcomes are sought, and what the service is
- that these decisions are plausible - that is to say, it makes sense that the service activities can contribute to those outcomes
- that these decisions are specific and precise, to avoid different team members having different interpretations
- that there is clarity around assumptions that are being made about the context around the intervention and how might they influence delivery and achieving outcomes.

Taken together, this **Theory of Change** will provide a consistent articulation of what the service or adaptation is trying to achieve, and how it will do it. Learning obtained from each cycle of testing is used to refine this articulation. The detail is worked out in the Design step.

Another piece of work needed during Assess is development of the learning agenda that will guide the data collection and analysis.

Any Theory of Change poses many questions that can be answered via rapid-cycle testing, and these answers can be used to drive improvement. But capacity is always finite so focussing on a small number of questions in each project is necessary. Evaluation questions need to be defined in detail, as does the quantitative and qualitative[8] data that will build these answers, and the tools and systems needed to collect this data.

"It's a very personalised use of the research evidence. We all have access to that, but the trick is to figure out how it fits into your model and the way you do things. It really forces you to think about your programme as an individual intervention and the children that you work with as well as the ethos and values of the organisation."

Geethika Jayalatika
CEO, *Chance UK*

[8] By 'quantitative data we are referring to numerical data which is collected to understand quantities This help us answer questions including 'how many?', 'how long?', and 'how often?'. By qualitative data we are referring to descriptive data which is collected to understand qualities. This helps us answer questions like 'why did this happen?', 'what was good or bad about it?' and 'what would you change?

CASE STUDY ONE CRISIS

In close collaboration with Crisis, Dartington convened a series of full-day Challenge Workshops across each of the three participating sites or 'Hothouses' (Edinburgh, South Yorkshire and Oxford). The aim was for each site to select one priority challenge grounded in local concerns. The workshops engaged more than 25 Crisis members (those accessing the homelessness services) and more than 70 Crisis staff and local partner agencies across three sites. Each Challenge Workshop created space for all participants to come together, understand different perspectives and develop a shared assessment of the problem. In mixed groups, different techniques were applied to better understand barriers to ending homelessness. These included design and development of homelessness personas, 'experience maps' of a Crisis member's journey into homelessness and their experience of the service, system mapping techniques that plotted the interconnected relationships of factors contributing to homelessness and clustering of themes to support sense making and collective voting to reach consensus. Each site selected a different local priority challenge, and these formed the focus of the Design step.

CASE STUDY TWO FNP ADAPT

FNP teams involved in the project were brought together with their local commissioners to identify key priority outcomes for their local FNP population, linked to a clinical area of FNP practice; in some cases, these were outcomes that had no statistically significant evidence of impact in a recent randomised trial about FNP, such as breastfeeding and smoking in pregnancy. Once identified, the Dartington team conducted a rapid assessment of the peer-reviewed evidence of effectiveness for services to address each clinical area, the most effective assessment tools, and the current FNP practice. This information was brought to the Design step to be considered along with practitioner and commissioner views to inform decisions.

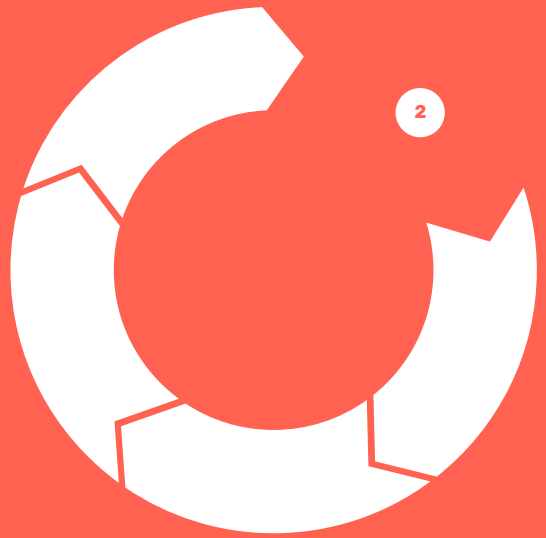
CASE STUDY THREE CHANCE UK

At the heart of the design process for the My Future service were two participatory workshops for all staff and trustees. During these workshops Dartington went through the crucial questions of who the service should serve, the outcomes for which it was aiming, and the activities and materials which could support these outcomes. Dartington supported them in this by carrying out a literature review and expert interviews in advance to identify the features of effective mentoring services. Existing performance data was also analysed to highlight areas where improvements could be made.

The workshops resulted in a new Theory of Change. In the next step, staff worked rapidly, drawing on further workshops with former and current mentors to design a new nine-month mentoring curriculum, supporting materials and training for mentors.

[9] Robling, Michael, et al. *"Effectiveness of a nurse-led intensive home-visitation programme for first-time teenage mothers (Building Blocks): a pragmatic randomised controlled trial."* The Lancet 387.10014 (2016): 146-155.

STEP TWO **DESIGN**



In the first cycle of a rapid-cycle design and testing project, the Design phase allows organisations to translate the decisions made in the Theory of Change into more detailed guidance and tools for staff and delivery partners. These often include new training manuals, new curricula, and new service materials for users.

While the Assess step demands a range of different perspectives, the Design work can be carried out by a more focussed team – this should include project team members with experience of practice. It's important that the project team assess whether the Design is aligned with the decisions made in the Theory of Change, as well as maintaining dialogue with a broader range of frontline staff about how they will be delivered, and what support is needed.

In subsequent cycles, design decisions will be informed by data collected during the project, which could show that parts of the service or adaptation cannot be implemented as planned, are unpopular with users, or seem to be having no, or adverse, effects. Once a decision has been taken during the Pause and Decide step, the project team needs to consider how they will implement this decision – it usually involves changing, stopping, or increasing something that staff do. This can be disruptive for staff and, just as in the first cycle, it's crucial to think about how these decisions are communicated, and how staff are supported to implement them.

STEP TWO **DESIGN**

The Design step is not just about designing the service – data collection tools and processes also need to be designed with input from the staff and volunteers who will use the service (for some services it may also be appropriate to ask users for their views on how and when they would like to provide data). Even if staff and volunteers are using familiar tools it is worth assessing and meeting any training needs now, with the expectation that further support and trouble-shooting will be needed once implementation begins.

CASE STUDY ONE FNP THE NEW MUM STAR

Triangle Consulting collaborated with the FNP National Unit, FNP teams and clients to develop the New Mum Star, based on its Outcomes Stars series. The New Mum Star is a clinical tool intended to facilitate structured and collaborative decision-making between clients and nurses about how to shape FNP to meet the needs of clients and their babies. This design and subsequent redesign was informed by qualitative and quantitative data from many sources, including the existing FNP programme and assessments, analysis of what nurses and clients recorded on the New Mum Star (quantitative on a 10 point scale), and qualitative data from FNP supervisors, nurses and clients.

Changes made during the Design step responded to quantitative data suggesting that clients' self-reported 'scores' were overly optimistic, which did not reflect contextual client data that identified greater levels of client need, and qualitative feedback from nurses which reflected the challenges of implementing a new tool in practice. This led to a redesigned tool with improved clarity in the scale descriptions to reduce difference in the way the nurses and clients were engaging with the tool. This new version was again tested in the same way and found to be much improved.

STEP THREE

IMPLEMENT & OBSERVE

After the research, decision-making and preparation of the previous steps, this is the moment where staff put the design into practice, and the project team provides support on implementation and with data collection. If an organisation is working with a research partner, this may also be the first time the research partner steps back a bit, and the internal project team lead.

As with more traditional evaluations it's important that practitioners attempt to deliver the service as closely as possible to the design and function specified in the Theory of Change. This includes flexing delivery sensibly, and in line with the theory and guidance, in order to respond to users' needs and arising circumstances. But it's also to be expected that when an intervention, or element of it, is being delivered for the first time, things will go wrong.

During at least the first cycle of a rapid-cycle design and testing project, we focus on testing whether the service can be delivered as designed, rather than looking for results. This means collecting data on things like attendance and engagement of users, communication with users and other stakeholders, and staff's confidence in delivering the new design. It isn't necessary to wait for the end of the first cycle to tackle any problems that are clearly emerging – but collaboration and communication really matter if the project team is to respond to what frontline staff are experiencing.

STEP THREE **IMPLEMENT & OBSERVE**

Beyond the first cycle, data collection can focus more on users' progress and outcomes, while still monitoring the quality and experience of implementation.

Data collection is also unlikely to go smoothly at first. Common struggles include staff comfort and familiarity with the data they must collect either from or about users, and the systems used to enter it. The early steps of a rapid-cycle design and testing project are a chance to both identify and troubleshoot these issues, and to build the organisation's capacity to collect, enter, and monitor their own data.

CASE STUDY ONE CRISIS

The priority was to co-design a suitable testing framework with those who would be responsible for collecting and using the data. The purpose of this collaborative approach was to ensure frameworks and data collection processes were proportionate and fit-for-purpose. Part of meaningful co-design is building evaluation capacity amongst sites as to the different functions of testing (e.g. improvement, learning, accountability or impact) and understand what matters most to them. In the first site, we presented a pre-prepared data dashboard to help monitor the adaptation design during implementation. This idea was to refine the content with each site. However, these initial discussions focussed on what could be collected, rather than what should be collected. So, the testing team took a step back and explored the different aims of testing frameworks with the site. By building evaluation literacy and focussing on co-producing the methods, there were more meaningful discussions about the type of data and testing framework that would be most valuable to meeting the priority function of testing agreed with Crisis staff.

For example, in one site, Crisis staff recorded for each person on their caseload whether the individual was engaging with the service, making progress, not engaging or out of contact. Dartington's analysis of this data produced charts that showed how people were engaging with the service over time. The charts allowed Crisis to see the overall picture and case-by-case information so they could adapt practice at a macro and micro level.

STEP THREE **IMPLEMENT & OBSERVE**

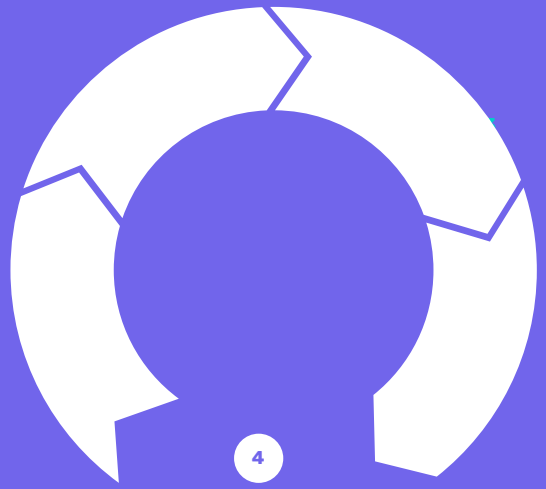
CASE STUDY TWO FNP ADAPT

During FNP ADAPT, especially during the initial steps and working alongside the FNP project team, we learned to prioritise communication in supporting good implementation. Initially, monthly calls were held with team supervisors to check in about implementation issues they may have been experiencing. Sometimes we found issues that were simple and quick to address but others were the first signs of more significant and complex concerns that would need to be addressed later, at the Pause and Decide step, with a wider group of stakeholders.

Dartington produced data completeness reports for all sites that were shared internally to openly compare how each site fared in terms of data entry. This helped identify FNP teams who were experiencing specific implementation challenges and who could benefit from further exploration of the barriers to implementation and the provision of additional support. It also enabled FNP teams to benchmark against each other and support mutual learning, within a safe environment, to encourage increased data completeness - and therefore data quality – which would lead to more informed decision-making once the Pause and Decide step came around.

STEP FOUR

ANALYSE & LEARN



The fourth step begins when all the data collected before a pre-agreed date is analysed to understand what it tells us about the research questions developed in the Design step: depending on which cycle or step of development the project is in, these will include questions about implementation, user satisfaction and engagement, or outcomes.

If an organisation is working with a research partner, this is where they should be most valuable in both analysing and communicating the data. However, it can be done internally too. What is important is that members of the project team have sufficient authority and confidence to present results which may not feel 'good' to other members of the project team or frontline staff.

Rapid-cycle design and testing projects are not really about the effects of the service on an 'average participant' – although the final results can be presented this way. The richest learning comes in helping organisations understand what the right things are to do in their context, how they do them well, and what works better or worse for different groups of people.

STEP FOUR **ANALYSE & LEARN**

During Analyse and Learn, it is important to look for differences in data between staff and between users. For example, are some staff managing to engage more users, or return more complete data? Are some users participating more, having a better experience or making more progress? Quantitative data helps identify these differences, but qualitative data can help us to understand why they exist and gives the project team a richer understanding of what they are seeing, meaning they are better informed going into the 'Pause and Decide' step.

Whoever carries out the analysis, how it is then communicated needs attention. Alongside making sure that data is clearly presented in a way that can be understood by all, it should be remembered it tells the story of the hard work of lots of people, including frontline staff. It's crucial that 'problems' be clearly flagged for discussion, but so should successes in implementation, user experience and outcomes.

Where there are findings that suggest something is going wrong, these should be presented for discussion, so that different members of the project team can each give their take on what might lie behind the data – it can be easy to make assumptions about what's driving problems but this can make people defensive, and undermine the ongoing process of change. More importantly, these assumptions can be wrong.

A point of process which can get lost in the rush of a project: good-quality analysis and visualisation of several months of data cannot usually be turned around in a couple of days. Researchers need time to create a resource that can be read by the project team in advance and allow them to move into the final step of the cycle prepared to make decisions.

"We developed a clearer sense of helpful benchmarks in the programme data over the course of several cycles of testing. We can now be much clearer about establishing implementation measures and have increased confidence that the changes do not have any detrimental impact on outcomes for clients, as we roll out this service delivery model more widely to FNP teams across England in 2020. It has helped to inform our continued work to evaluate and monitor the quality and impact of the programme."

Lynne Reed
Director, *National Lead for Family Nurse Partnership and Parenting Programmes*

STEP FOUR **ANALYSE & LEARN**

CASE STUDY ONE CHANCE UK

In the first cycle of testing, which lasted five months, Dartington sought to identify early barriers to the integration of the new My Future service within Chance UK's existing infrastructure and practices. This involved Dartington leading monthly reviews with My Future service managers of the quantitative and qualitative data entered by mentors to reflect their mentoring sessions. Within the first month of this monitoring, it became apparent that some session reports had incomplete or incorrectly entered data. The data entered also highlighted several faults in the functioning of the data system. These factors rendered some reports unusable.

In addition to the data system malfunctions, an e-survey prepared by Dartington specifically to collect direct feedback from mentors revealed that some of them did not fully understand how to complete the reports online and found the wording of some questions unclear. This learning was used to revise the wording of questions, provide individualised guidance to mentors during their supervision meetings on how to complete reports, and correct the data system malfunctions.

For the rest of the cycle, the monthly data reviews continued, noting whether the changes resulted in improvements or if further refinements were needed. The end of the cycle saw an accumulation of learning about the ability to collect data on the My Future service using the usual data system and practices. This learning was reviewed during the Pause and Decide step at the end of the first cycle to inform more permanent changes to data collection practices.

STEP FIVE

PAUSE & DECIDE

This step is about making decisions: it's when the project team must review the data and decide what they do next. These decisions may be relatively small: increase communication with users between activities to support engagement, adapt data entry forms to be easier for staff, or stop holding sessions on a particular day. Or they may be big: roll out a particular practice across all the organisation's work or halt an adaptation or service altogether.

It's unusual to make big decisions early on in a rapid-cycle design and testing project – not only is there not enough data to base the decision on, but practitioners need time to learn new ways of working and the service needs more time to become established. However, every rapid-cycle design and testing project is building to exactly those big decisions in the end – will this service or adaptation become business as usual, or has it not proved valuable enough to keep?

The decisions made in the earlier cycles of a project can be relatively quick to execute – after all, they are aimed at improving design and delivery so that data shows improved implementation, engagement, or progress in the next cycle. The project team needs time to make design changes where necessary and support staff as they move to implement again.

STEP FIVE **PAUSE & DECIDE**

Pause and Decide meetings are an important milestone in rapid-cycle design and testing projects – marking the end of one cycle and starting the next one off through the decisions made. They need to be face-to-face if possible and involve the whole project team, and any other stakeholders whose views are needed.

These meetings are a space to reflect on the experiences of the cycle, and to work through and come to an agreement on the specific issues presented by the data. There is room for people to share their own interpretations of what the data means and what action should be taken – by the end of the meeting, the team should be decided on specific courses of action, and these decisions can be communicated to wider stakeholders.

" The exercise going through all the stages of someone's contact with [the service] was useful. It was good for raising some of the challenges members have found here and showed lots of ways we could make small improvements. "

Kate Cocker
Director, *Crisis Skylight Oxford*

CASE STUDY ONE CRISIS

All three sites underwent similar processes in the Assess step yet produced very different designs that were grounded in local concerns and tailored to the delivery models. The outcome of each site was likewise significantly different. Site one trialled, refined and ***sustained*** their adaptation. Site two trialled, adapted and ***discontinued*** their adaptation. Site three did not trial their adaptation, but a variation of their proposal was ***rolled out*** across Crisis.

For example, in the site that elected to discontinue the adaptation – food bank outreach work in Oxford - they did so after six months of testing and two cycle points. The quantitative data showed that the number of people at risk of homelessness seeking advice at the food bank was lower than hoped. The staff also reflected in qualitative interviews that their outreach work mainly involved delivering information, advice and guidance rather than the one-to-one coaching in which Crisis staff specialise. This captured important insights and learning for Crisis and others: the team felt it would be a good use of resources to train volunteers to deliver information and advice in food banks.

CASE STUDY TWO CHANCE UK

By collating and reviewing the data from 157 reports across the first cycle, we were able to observe a pattern; one out of five weekly mentoring sessions were not held as scheduled. Of these missed sessions, most were not due to unforeseeable reasons like illness, emergencies or bad weather. Instead, they were due to mentees being unavailable because they were away on family holidays or events. This trend worsened for sessions scheduled during the Summer months.

During the first Pause and Decide meeting in September 2019, My Future stakeholders, including Chance UK's service managers, CEO and Dartington, decided on ways to respond to the trend during the next cycle. Firstly, it was considered that an increase in mentee unavailability during holiday months like August and December may be inevitable. Therefore, the best course of action may be to expect a disruption in weekly sessions during these periods for some mentees and mentors and encourage mentors to reschedule or find the most feasible ways to make up for missed content during remaining sessions. Secondly, it was agreed that efforts to engage with mentees' parents and carers should increase, especially since the pattern also showed that some missed sessions were as a result of a parent or carer cancelling at the last-minute or forgetting that their child had a session scheduled.

At the end of the second cycle, which ran from early September to early December, the team gathered again to review learning based on more than 500 reports. There were fewer missed sessions due to mentee unavailability, with fewer reports of holidays. This may have been due in part to the difference in time periods between cycles. The pattern also showed a decline in parent or carer unavailability and cancellations, most likely due to staff's increased efforts to engage them by regularly sharing their child's progress and successes with them. We decided to continue these engagement efforts and monitor the trend in the final cycle, which included the Christmas holiday.

8. WHAT HAPPENS NEXT

The final Pause and Decide step concludes not just the final cycle, but the whole project, which is likely to have lasted several cycles in total. Decisions are made about whether what was delivered during the project will be delivered again, and if so what the final model for delivery will be.

Different decisions have different implications to work through. A larger number of staff may now need to be trained in the new elements of delivery, alongside consideration of how to help them deal with this change. Even if staff have not been involved directly in the project, this shouldn't be the first time that they're hearing about it, or understanding the changes to their work, and the positive reasons for the change.

Where the project has not revealed improvements that can be implemented, it can feel like a failure, and be demoralising for staff. In these cases, it is crucial that leadership is sensitive to this and focusses both on communicating the success of the process and the learning that inevitably has been generated.

This principle holds for external communications too – it is easy for organisations to talk publicly about rapid-cycle design and testing when it's just getting started, but harder to share the results, which can be complicated, and contain 'failures' as well as successes. But it's crucial for stakeholders, including users, funders, and referral partners to understand what you tried, and how you're using the learning. It's also invaluable for peers, who may be thinking through the same questions you were at the start of the project.

Although rapid-cycle design and testing can require less resource (including from staff) than undertaking a randomised controlled trial, it still takes a lot of time and energy. With the experience and skills under your belt, and some new insights from data it can be attractive to think of moving on to designing and testing the next improvement. We recommend taking a break, and in time, beginning the process again – but not skipping the first step where you look across your activities and your users' needs to agree your next testing priority.

Finally, a process of rapid-cycle design and testing typically generates rich learning, drives up quality and increases *confidence* that outcomes will be improved. But it is intentionally not a method that can generate complete confidence about impact on outcomes, and particularly not attribution of outcomes to an organisation. For this, other methods like randomised controlled trials may be more valuable, with rapid-cycle design and testing providing a way to refine a service and test the feasibility of evaluation before embarking on a trial.

9. WHAT WE'VE LEARNED

Dartington has supported rapid-cycle design and testing projects in different contexts, and in organisations of different sizes. This experience has shaped and refined the method we describe above and has helped identify challenges that can get in the way of a successful project, and practices that can make success more likely. Some are more important at certain steps than others and we've included this in our reflections below.

LEADERSHIP AND ORGANISATION READINESS

Rapid-cycle design and testing requires commitment – it takes **resource and time** to do well, whether you are working with an external research partner, or doing it all in-house.

This commitment needs to be modelled by the **senior leadership**. Senior staff need to make sure that people have ringfenced the time to give to it, rather than adding it to an existing full workload. As we have shown it is likely that many team members will need to give some of their resource to a rapid-cycle design and testing project. Indeed, senior leadership themselves almost certainly need to be involved in the Theory of Change process, and in the Pause and Decide steps, particularly the final one.

As importantly, senior leadership needs to communicate and affirm the purpose of the process. This is important as the project is getting underway, but also as it continues and changes, and as it wraps up and reports. Keeping the project visible in the organisation through regular communication from the senior team is not just important for maintaining the project team's motivation, but also in supporting the change that's needed to make the project work. This change can be difficult for staff – understanding, encouragement, and a listening ear from senior colleagues helps.

Senior staff can sometimes struggle with communicating that this project has been undertaken not to 'prove' impact, but to 'improve' it – it requires acknowledging that things could be better. Sharing the data uncovered in the Assess step can help staff across the organisation understand why the project is being undertaken and can open up wider discussion about what the organisation is good at, and not so good at. This openness is a crucial part of a learning culture.

CO-PRODUCTION

Engaging all relevant stakeholders within a rapid-cycle design and testing project can be logistically and intellectually demanding, but we believe it's worth it. It increases the chances that the design will be acceptable to, and valued by, those it's delivered to, and feasible for those it's delivered by. Those affected by the issues addressed can identify barriers to, or conditions for impact that might otherwise go unnoticed.

So who are relevant stakeholders? The core team itself should certainly include the practitioners who will deliver the service – and a larger group of their peers may be involved at key moments. They can guide design decisions via their on-the-ground experience. During the Analyse and Learn step they can interpret and explain the data they collected during Implement and observe. If delivery staff include volunteers their input can be harder to get – rather than frequent short meets in the working day, you may need to run longer, less frequent sessions with them.

Logistical challenges in involving users, or those that can represent them (if your service works with, for example, young children), are also real. But whether they are past users, or potential future users, their presence and input is crucial. This should be obvious during the Assess step. They may also be interested in shaping the questions that are asked and the interpretation of data too – the reasons *why* some users didn't attend or stopped engaging at a certain point can't always be gleaned from practitioners. As those most invested in the organisation getting things right, it can also be helpful to involve service users in the Pause and Decide step, to participate in the decisions about future direction. As with volunteers, if you want users to be a part of the process and to be able to meaningfully contribute, you will need to make it work for them and actively identify and remove barriers of time, transport, and childcare.

Beyond these most important groups, funders and commissioners of your service can be included – they are not as close as users and staff, but they have a good understanding of the broader landscape and where your service sits, as well as which factors might help its longer-term sustainability. Increasing impact is the priority in a rapid-cycle design and testing process but responding to what your funders and referral partners need can also strengthen a service for the long-term.

Different stakeholder groups bring particular strengths and insights but there are also **power dynamics** to negotiate. Practitioners and users may find it hard to be honest with each other in the room, and their insights might be sought separately. Organisations may be tempted to 'over-promise' to funders or see involving them as a relationship-building exercise, rather than genuinely seeking insight.

To combat this, it's important to be honest and clear with each group, and with individuals, about why you want their involvement, what you expect from them, and what the value is for them. This clarity helps to set expectations and avoid disappointment or frustration on either side during the process. It is also often helpful to be open about these power imbalances with those who hold the most power, and work to redress imbalances through the way facilitation is used during sessions.

CHANGE AND LOSS

Rapid-cycle design and testing is about improving, learning and moving forward towards impact – things that everyone can sign up to in theory. In practice, we have found that there is often a kind of grieving process for old ways of working as the transition occurs.

Practitioners have often been practising in full faith that they were making the right difference in the lives of the people they work with and have difficulty accepting that this could be improved. Even those away from the frontline can struggle with the idea that the current model could change. This should be openly acknowledged and people's personal views sought.

As well as delivering a new or adapted service, the team will also be collecting new data, perhaps in new ways. It's important to **prepare your team** to be both ready and open to testing innovative ideas, how to administer data collection forms and measures in the field and how to record data. This might be in the form of guidance material for practitioners to refer to and learn from, either as a manual or a video. Regular calls with the team to check-in on both how implementation and data collection can also work well with a commitment to solve the problems raised.

Even where data collection goes smoothly, the Analyse and Learn and Pause and Decide steps can be challenging. The analysis naturally looks for problems as much as for successes, and this can feel exposing for practitioners. Staff should be encouraged and empowered to interpret the data collaboratively and explore possibilities of what it might be suggesting. This process is helped by clear visualisation of ***both* qualitative *and* quantitative data,** even where one is more limited than the other. They open up different lines of conversation and help the team reach a richer understanding and stronger decisions.

Showing variations in data is also important – both between different types of users, and between different practitioners or teams. Rapid-cycle design and testing is particularly useful in sparking informed reflection on why things work better or less well for different people, or the different ways in which practitioners can interpret delivery guidelines. Again, providing safe space for practitioners to discuss this without feeling they must defend their practice can give new insight into why things work well or less well.

10. CONCLUSIONS

Our work over the last three years has taught us that rapid-cycle design and testing is possible in organisations of different sizes, with different experiences of evaluation, and with different questions to answer. We've also learned that the process can run into difficulty if attention is not given to the human factor - adaptation of a service requires people to adapt and change too. When they do not understand the reason for this change, or are not properly supported in implementing it, the project runs into trouble – and considerable effort is required to get it back on track. Building in shared understanding for change from the start is essential.

We believe that people need as much investment as process, and where this happens, rapid-cycle design and testing can reap reward beyond the direct outcomes of the project: it builds an organisation's capacity to look honestly as its successes and failures from the perspective of its users, use evidence to design alternatives, and collect and analyse their own data. This is the case even where they have worked with an external partner on a rapid-cycle design and testing project. Rapid-cycle design and testing only works if an organisation is fully involved, so they also learn skills for the future.

We also believe that rapid-cycle design and testing is an important new way of looking at evidence. Traditional methods to evaluation can often disconnect those asking the questions of a service from those who deliver it, and those affected by it. Furthermore, services with proven impact in evaluation have been expected to successfully replicate in new contexts, often with disappointing results.

Rapid-cycle design and testing tackles both these problems: it empowers those who are delivering a service to asks the questions they care about, to find the answers themselves, and decide what the implications of those answers are. It also demands the involvement of those who use the service or are affected by it – and we are looking to learn more about how to make this involvement as meaningful and mutually beneficial as it can be.

Rapid-cycle design and testing also produces evidence that is rooted in specific context. One project can produce findings that a similar service can see are relevant to them and could integrate. But, following the method in the report, they would have to intentionally assess *their* ability to deliver it, *their* track record, and *their* users' needs as well as whether it had worked elsewhere, before they implemented it. This would lead them to adapt promising practice to their context, and to testing to see whether their hunch that it could work for them too was correct.

These are important steps forward in making evidence more genuinely useful in the pursuit of impact for children and young people. We look forward to engaging with other organisations in discussions about how to further this pursuit, as we share our experiences to continue to learn from each other to improve what we do.

ACKNOWLEDGMENTS

A lot of people's time and hard work generated the learning in this report. We are very grateful to the organisations featured in the case studies.

They and their staff have enabled us to develop our rapid-cycle design and testing method, and have generously shared their stories here. In particular, we want to thank these individuals: Chance UK - Geethika Jayatilaka and Mwila Mulenshi. FNP National Unit - Ailsa Swarbrick, Beth Heller, Lynne Reid, and Alex Stephenson. Crisis - Kate Crocker and the three Skylight teams. We would also like to thank Kate Tobin for her contributions to this report.

Many Dartington staff, past and present, have played a role in the development of rapid-cycle design and testing. In particular, Tim Hobbs, Louise Morpeth, and Nick Axford shaped the method from its earliest days, and Jason Strelitz supported its earliest iterations on the FNP ADAPT project.

Thanks also to Rachel Lily and Maria Portugal for their work editing and designing this report. We are also grateful to the Paul Hamlyn Foundation, whose support has helped us to write this report.

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