

An introduction to service design and a selection of service design tools



Design methods for developing services



This project is a collaboration between:

Technology Strategy Board
Driving Innovation

**Design
Council**



Design methods for developing services

About this document

The double diamond design process

Tools and methods

About this document

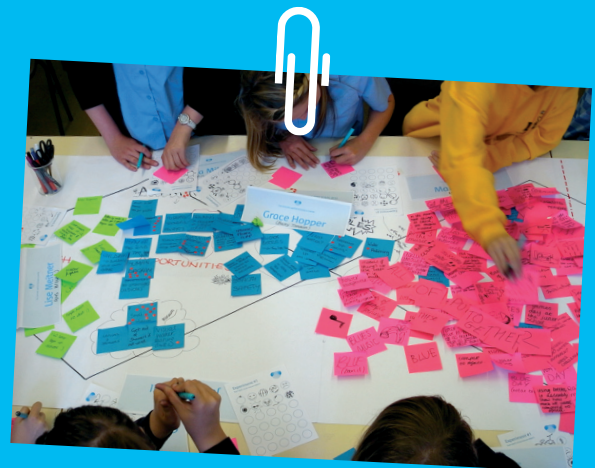
This is a brief introduction to why design methods can be useful when developing services.

If you're new to service design:

You can use it to familiarise yourself with a typical process that designers use when developing products and services. It will give you an idea of what to expect from working with a designer.

If you're a designer:

You may be familiar with all of this already, but you may find this document useful when explaining common service design methods to others that are new to them.



Contents

About this document

- 3 About design and why work with a designer
- 4 Using design to develop great services

The double diamond design process

- 6 The double diamond overview
- 8 What to do at each phase

Tools and methods

- 11 Discover phase
- 16 Define phase
- 19 Develop phase
- 22 Deliver phase



Design methods for developing services

About this document

The double diamond design process

Tools and methods

About design

"Design is what links creativity and innovation. It shapes ideas to become practical and attractive propositions for users or customers. Design may be described as creativity deployed to a specific end."
— The Cox Review

Design has many different definitions, but at its heart it is about the process of translating ideas into reality, making abstract thoughts tangible and concrete.

Whether it's for a new service, a piece of graphics or an innovative product, a number of key attributes underpin every design-led project. These fundamentals should inform the responses to the Keeping Connected Business Challenge, ensuring design-led solutions that enhance independent living and quality of life for older adults.

Why work with a designer?

User understanding

Designers look to understand the needs and desires of the people who will use a product or service by spending time with them. This approach ensures solutions are both fit for purpose and desirable to the people who will use them. By focusing on human stories and insights designers build empathy for users, and ensure ideas being developed are relevant.

Prototyping

Designers work iteratively to test their ideas and improve them throughout the entire development process. Making an idea tangible from an early stage through cheap mock-ups helps save resources and can minimise risk. Prototyping can be applied to both products and services, and allows real world feedback from users that ensure better, more relevant outcomes. It can be quick and cheap and allows a solution to be iterated and improved before it is rolled out.

A tool for collaboration

The Keeping Connected Business Challenge involves collaboration between multidisciplinary teams. Designers make things visual and tangible – they draw pictures, they make models; this allows the complex or ambiguous to be made simple and straightforward. Doing this allows ideas to be rapidly communicated and understood, which in turn fosters collaboration between designer, partners and users.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Using design to develop great services

Service design is all about making the services we use usable, easy and desirable.

Services are all around us - buses, shops, libraries, dentists, restaurants and the post office help us get to work, get our food, or keep in contact with each other.

A service happens over time and is made up of touchpoints – the people, information, products and spaces that we encounter. For instance a menu, a chair or a waitress are all touchpoints that make up a restaurant service.

Service design is the process of creating these touchpoints and defining how they interact with each other and with the user. To design a great service it is important to have service users in mind: are they staff, suppliers or customers? Using design tools and methods can deliver an in-depth understanding of user behaviours, their likes and their needs, which can enable new solutions to be developed.

Service design can be used to re-design an existing service to make it work better for users, or it can be used to create an entirely new service.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

The double diamond design process





Design methods for developing services

About this document

The double diamond design process

Tools and methods

The design process

Every designer has a slightly different approach and different design specialisms also have their own ways of working, but there are some general activities common to all designers. The Design Council has developed the 'Double Diamond' model to illustrate this.

Divided into four distinct phases: Discover, Define, Develop and Deliver, it maps how the design process passes from points where thinking and possibilities are as broad as possible to situations where they are deliberately narrowed down and focused on distinct objectives.

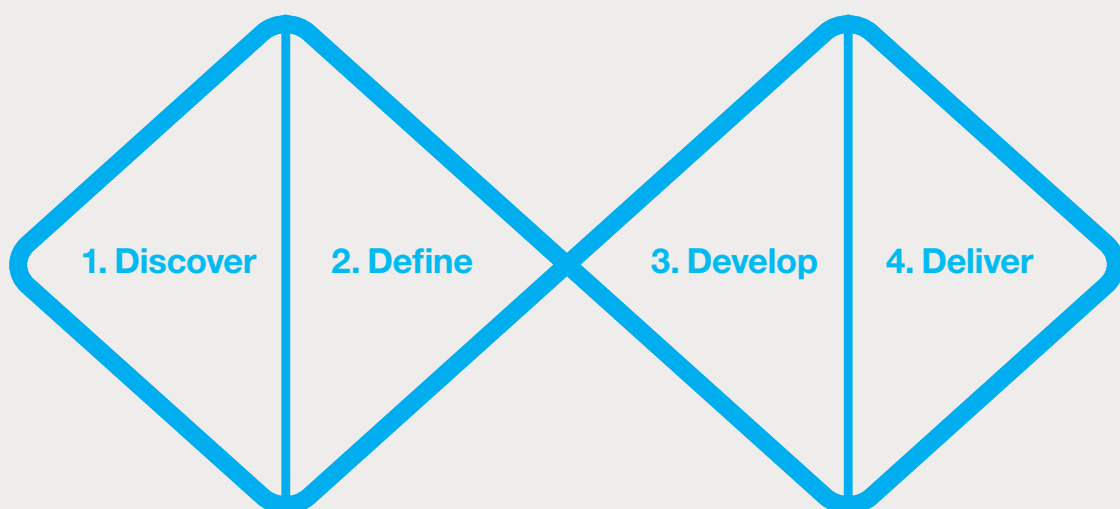
Tools and methods

Outlined in this section are design tools and methods you might find helpful to use as part of the Keeping Connected Business Challenge. It is not a definitive list, but is included to help familiarise collaborators with design ways of working.

These methods are not rigid protocols to be followed unthinkingly, but frameworks that can and should be adapted to the task at hand. Some of the tools work best at 'big picture' thinking while other focus on specific project details. Balancing and linking the two is important to develop the best outcome.

Most tools and methods can be adapted by altering the level of detail, sketching quickly or developing in-depth, depending on the outcomes needed or time and resources available.

Overview of the double diamond phases





Design methods for developing services

About this document

The double diamond design process

Tools and methods

The double diamond in more detail

1. Discover



The start of a project is a period of discovery, gathering inspiration and insights, identifying user needs and developing initial ideas.

The first quarter of the double diamond model covers the start of the project. Designers try to look at the world in a fresh way, noticing new things and seeking inspiration. They gather insights, developing an opinion about what they see, deciding what is new and interesting, and what will inspire new ideas. Specific methods include: market research, user research, managing and planning and design research groups.

2. Define



The second quarter represents the definition phase, in which designers try to make sense of all the possibilities identified in the Discover phase.

Which matters most? Which should we act on first? The goal here is to develop a clear creative brief that frames the fundamental design challenge to the organisation. Key methods during the Define phase are: project development, project management and project sign-off.

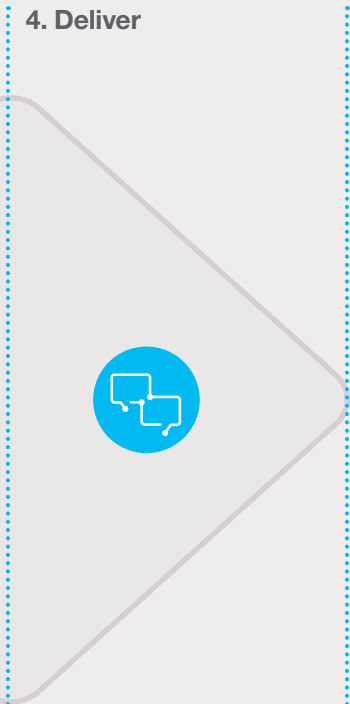
3. Develop



The third quarter marks a period of development where solutions are created, prototyped, tested and iterated. This process of trial and error helps designers to improve and refine their ideas.

Key activities and objectives during the Develop phase are: brainstorming, prototyping, multi-disciplinary working, visual management, development methods and testing.

4. Deliver



The final quarter of the double diamond model is the Deliver phase, where the resulting product or service is finalised and launched. The key activities and objectives during this stage are: final testing, approval and launch, targets, evaluation and feedback loops.



Design methods for developing services

About this document

The double diamond design process

Tools and methods

1. The Discover phase



Objectives

- Identify the problem, opportunity or needs to be addressed through design
- Define the solution space
- Build a rich knowledge resource with inspiration and insights.

The beginning of every design project is marked by an exploratory phase where insights and inspiration are gathered. This Discover phase can be triggered in many different ways such as social trends, novel technology, the launch of a competitor service, or in the case of the Keeping Connected Business Challenge, a funding call.

In the Discover phase we begin to identify the problem, opportunity or need to be addressed as well as define some of the boundaries of the solution space.

This exploration uses both qualitative and quantitative research methods and can involve both directly engaging with end users and analysis of wider social and economic trends. This research builds a rich bank of knowledge that will inform the rest of the design process and act as a guide and inspiration to the design team.

Tools & Methods



User Journey Mapping



User Diaries



Service Safari



User Shadowing

2. The Define phase



Objectives

- Analyse the outputs of the Discover phase
- Synthesise the findings into a reduced number of opportunities
- Define a clear brief for sign off by all stakeholders.

The initial Discover phase is about opening out and exploring the challenge to identify problems and opportunities. The Define stage channels these towards actionable tasks.

The mass of ideas and findings are analysed and structured into a reduced set of problem statements. These are aligned with the organisational needs and business objectives to identify which to take forward. The Define phase results in a clear definition of the fundamental challenge or problem to be addressed through a design-led product or service.

Tools & Methods



User Personas



Brainstorming



Design Brief



Design methods for developing services

About this document

The double diamond design process

Tools and methods

3. The Develop phase



Objectives

- Develop the initial brief into a product or service for implementation
- Design service components in detail and as part of a holistic experience
- Iteratively test concepts with end users.

The Develop phase takes the initial design brief and through an iterative process of developing and testing, refines the product or service concepts until they are ready for implementation. Using design and creative techniques, the design team and partners develop the individual service components in detail and ensure these link together to form a holistic experience.

In the Develop phase working iteratively and testing with users throughout the process helps ensure a more robust service and focuses the teams' efforts. The final product or service will incorporate this feedback and be ready for implementation.

Tools & Methods



Service Blueprinting



Experience Prototyping



Business Model Canvas

4. The Deliver phase



Objectives

- Taking product or service to launch
- Ensure customer feedback mechanisms are in place
- Share lessons from development process back into the organisation.

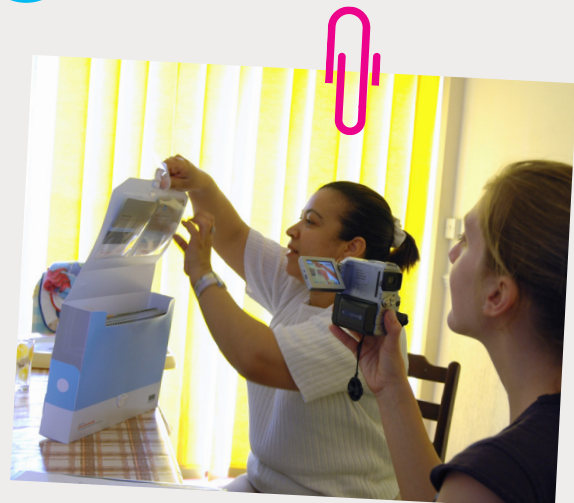
In the Deliver phase, the product or service is launched and begins to address the needs identified in the Discover phase.

The final concept is taken through final testing, finalised and signed off. It is important to ensure systems are in place to capture user feedback, especially for services. The Deliver phase is also the point to feed back lessons from the process to colleagues and partners, sharing new knowledge, insight tools, or ways of working.

Tools & Methods



Scenarios





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods

1. Discover

The start of a project is a period of discovery, gathering inspiration and insights, identifying user needs and developing initial ideas.



User Journey Mapping



User Diaries



Service Safari



User Shadowing

2. Define

In the Define phase ideas are synthesised and aligned with business objectives, creating a clear brief that frames the design challenge.



User Personas



Brainstorming



Design Brief

3. Develop

Design-led solutions are developed, prototyped, tested and iterated. This process of trial and error helps designers to improve and refine their ideas.



Service Blueprinting



Experience Prototyping



Business Model Canvas

4. Deliver

In the Deliver phase, the product or service is taken through final testing, finalised and launched.



Scenarios



Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



User Journey Mapping

What is it?

A User Journey Map is a visual representation of a user's journey through a service, showing all the different interactions they have. This allows us to see what parts of the service work for the user (magic moments) and what parts might need improving (pain points). A User Journey Map takes the user's point of view and explains their actual experience of the service.

Aims

- Identify the key elements of a service
- Understand the links between all the different elements over time
- Identify problem areas in a service or areas where new things can be added
- Create empathy with different types of users.

How can I do this myself?

User Journey Mapping draws on the outputs of design research methods such as observation or service safaris. These ground the journey map in real user experiences rather than an abstract notion of how the service works. Map a user's progress through the service, beginning with when they first become aware of the service through to when they leave. In doing this the different activities of the user journey are defined, with related tasks grouped together in key stages, such as 'sign-up' or 'payment'.

Identify the individual touchpoints with each stage – the people, information, products and spaces encountered – are identified. Links or gaps between touchpoints will reveal themselves as the map is developed.

To get a holistic view of a user's experience it can be useful to work in cross-functional teams. Some services might have different types of users, with different experiences, and require multiple journeys.

What are the outputs?

A User Journey Map is a visual map or diagram, identifying the key stages, touchpoints and other components that make up a user's service experience.

The journey map might contain photographs, illustrations and quotes to bring it to life. It may also have an additional layer of explanation that identifies problem areas or opportunities.

See page 12 for an example of a User Journey Map.



Design methods for developing services

About this document

The double diamond design process

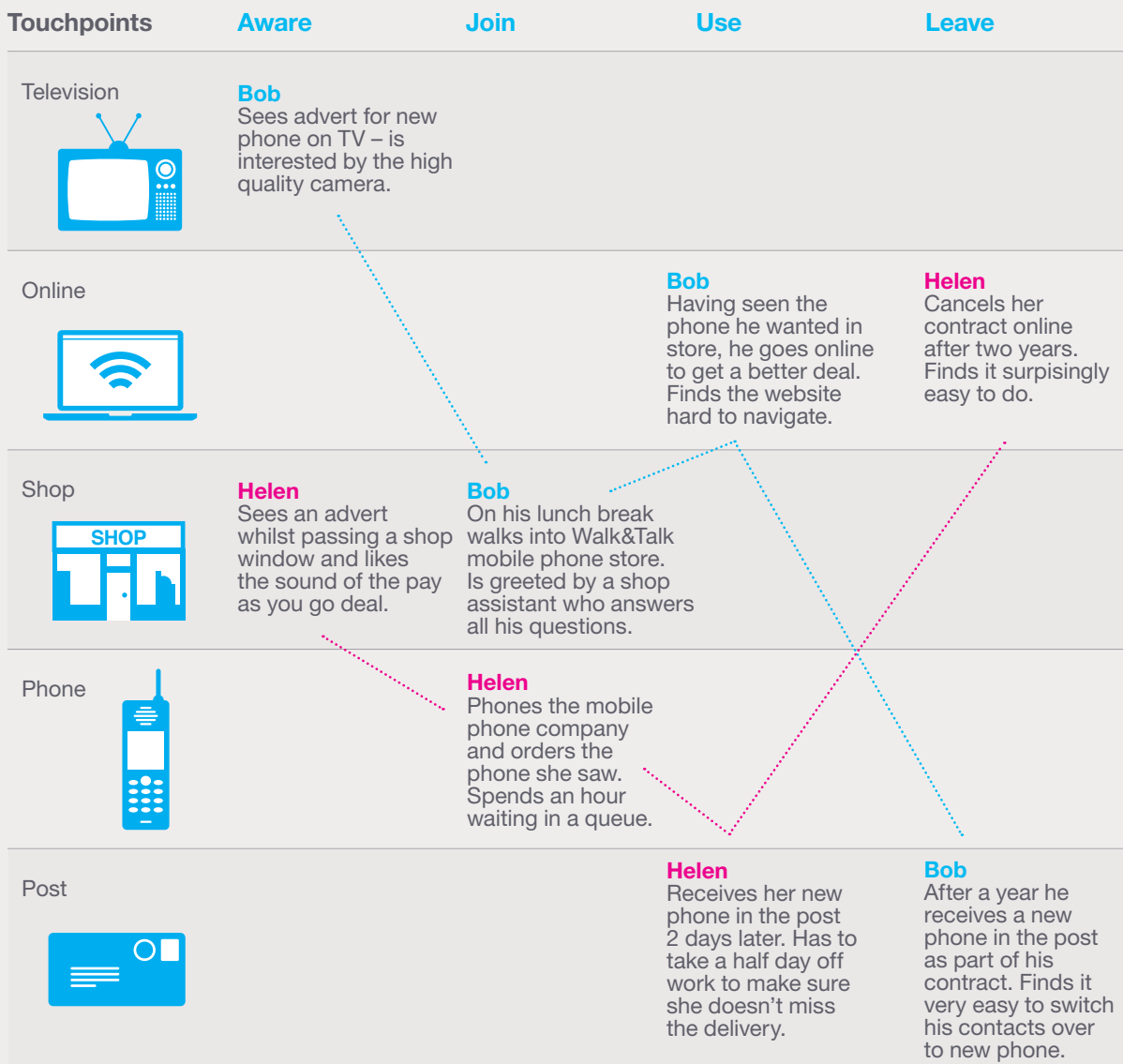
Tools and methods

Tools and methods



User Journey Mapping

Journey chart example for a mobile phone service





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



User Diary

What is it?

User Diaries are a method for gathering in-depth qualitative information from users by giving them a way of recording away from researchers. It allows people to tell about their own lives in their own time, and explain what they do over a number of days or weeks. User Diaries can be realised in many different formats but usually consist of some personal background information and a 'diary' style format for capturing information over time.

This basic information can be supplemented with additional questions or tasks. Sometimes cameras or other documentation equipment is provided to gather visual feedback for researchers.

Aims

- Gather information about real user needs
- Get understanding and empathy about other people's experiences
- Get a sense of a user's life over a longer period of time.

How can I do this myself?

The key to good User Diaries, as with all qualitative research, is identifying the correct people to take part. In general, a relatively small group is sufficient; the aim is to get rich information and insights to drive the design process, rather than quantitative answers. User Diaries are created based on the context of the project and needs of the design team. The diary period can vary from a few hours to a number of months and again is dependent on the individual project.

In general User Diaries consist of three main sections.

- Background information that covers name, age, occupation, location, family, hobbies & interests, likes & dislikes. This helps to give some understanding of the person
- A Diary section for users to complete over a period of time – just like a diary. This should have a number of prompts or questions to provide some structure. It might use photography or video to document
- Additional questions and tasks that provide stimulus to users to gain more insight from them on particular topics.

What are the outputs?

Completed User Diaries supply rich qualitative information on a set of users over time. They might include video and photographs as well as written descriptions.

User Diaries help identify important user needs and insights and provide inspiration to design teams.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



Service Safari

What is it?

A Service Safari is a research method for understanding services. Researchers go 'on location' and experience a service first hand to find out what service experiences are like.

A Service Safari might be focused on a particular service (like going to Tesco), or type of services (like going to a supermarket). Alternatively it might look at a wider range of services to get an idea about what makes a positive service experience (like services where I can buy food).

Aims

- Gather information about a service in the real world
- Identify what makes for a good service experience across many different service types.

How can I do this myself?

Service Safaris are a useful exercise at the beginning of a design process. They help everyone gain a rich understanding of services and are relatively easy to structure. The key to a good service safari is to identify relevant, engaging services that reveal insights and provide inspiration to the design team. Each participant should record their experience in writing, or by using video and photography. Engaging with a service, observing staff, looking at users and documenting the environment and materials, helps participants identify how services deliver value to customers.

A Service Safari can be somewhat haphazard so in a large group assigning roles is an option. Through sharing their experiences the team can build a collective understanding and begin to define what makes a great service experience.

What are the outputs?

The output of a Service Safari is some written or visual record of the event and might include photographs, drawings or video.

More important is the experience itself, Service Safaris help team members tune into service touchpoints and experiences, and interrogate these in new ways.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



User Shadowing

What is it?

Shadowing is a research method for understanding how people interact with the world around them (including services). It involves observing a user directly to identify and understand their needs.

Researchers follow a particular person as they go about their lives or use a service and document what happens in an unobtrusive way.

How can I do this myself?

Time should be spent identifying the correct people to shadow. In general, a relatively small group is sufficient as the aim is to get rich information and insights to drive the design process. Shadowing involves spending time with the person over a number of hours or days and observing what they are doing and why. This might take place in one session or over a number of different sessions, and is done as unobtrusively as possible.

Getting immersed in a person's life helps identify the barriers and opportunities they encounter, even those the user is not explicitly aware of. It allows the researcher to develop real understanding of service interactions, and see the differences between what people say and what they do.

What are the outputs?

The output is in general written documentation with supporting visual materials such as photographs, drawings or video captured during the shadowing session.

These materials, observations and insights provide input into the Define phase of the design process.

Aims

- Gather information about real user needs
- Get understanding and empathy about other people's experiences
- Understand the different parts of a service such as staging, interactions and touchpoints
- Identifying barriers and opportunities for service innovation.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



Brainstorming

What is it?

Brainstorming and other ideation techniques are used to generate alternative solutions and opportunities quickly. They identify the most interesting or important ideas to take forward as part of the design process.

Brainstorming is particularly useful to break out of established patterns of thinking, and develop new ways of looking at things. It also helps overcome many of the issues that can make group problem solving a difficult or unsatisfactory process.

Aims

- Generate a large number of potential ideas
- Identify key ideas to develop further
- Create a shared understanding of potential opportunities around a topic or theme.

How can I do this myself?

There are a large number of brainstorming and ideation techniques available. In general, a facilitator structures the group session and ensures a rich discussion. In successful brainstorms it is important not to have too many people or carry on too long (no more than 12 people for longer than an hour).

Involving a range of different people with diverse skills and perspectives is important. This increases the richness of ideas explored and builds buy-in from team members. It can be useful to have several sessions, looking at different sub-themes or topics, or have multiple groups work on the same topic. Capturing ideas in a visible way allows everyone to see progress and ensure the conversation stays focused.

While brainstorming and ideation techniques are all different, these are some good rules to remember.

- **Defer judgement**
- **Build on the ideas of others**
- **Focus on the topic**
- **One conversation at a time**
- **Encourage wild ideas.**

What are the outputs?

Brainstorming and other ideation techniques will result in a large volume of ideas around a particular topic. These are then reduced down to a number of key ideas to be developed further.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



Design Brief

What is it?

A Design Brief is a clear definition of the fundamental challenge or problem to be addressed through a design-led product or service.

It is a structured statement that outlines goals, constraints, budgets and timelines. It communicates project outcomes, identifies potential risks and highlights how these will be mitigated.

How can I do this myself?

A design brief is usually developed by the project manager or a design management professional. It synthesises current project knowledge from the Discover and Define phases and outlines next steps.

A good Design Brief should be written in easily understood language, provide clear direction, but avoid being overly rigid in specifying detailed design work.

A Design Brief allows for formal sign off by project sponsors and sets the boundaries of the rest of the service development process.

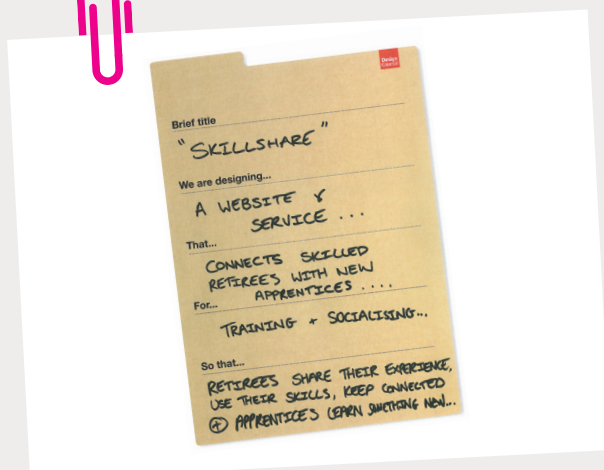
Aims

- Define the problem or challenge to be addressed
- Provide a reference point for designing in the Develop phase
- Provide a plan for the Develop phase.

What are the outputs?

A Design Brief is usually a formal written document, which may be supplemented by user research data and other background materials.

The Design Brief forms a core reference point for all stakeholders in the Develop and Deliver phases of the design process.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



Service Blueprint

What is it?

A Service Blueprint is a detailed visual representation of the total service over time - showing the user's journey, all the different touchpoints and channels, as well as the behind the scenes parts of a service that make it work.

A Service Blueprint helps everyone involved in delivering the service understand their role and ensure the user has a coherent experience.

Aims

- Design and problem solve the complete service experience
- Provide guidance when identifying areas to prototype
- Communicate the service to the people delivering it, as well as to users during testing.

How can I do this myself?

A Service Blueprint pulls concepts and touchpoints in development together into a unified structure and provides a holistic view of the all service elements. A Service Blueprint often looks similar to a User Journey Map (see page 12). The difference is that it maps the future service, not the existing.

Initially map a user's progress through different service stages, ranging from awareness, to use, through to leaving the service. In doing this identify touchpoint encountered. These touchpoints each can be segmented into different channels such as face-to-face or web.

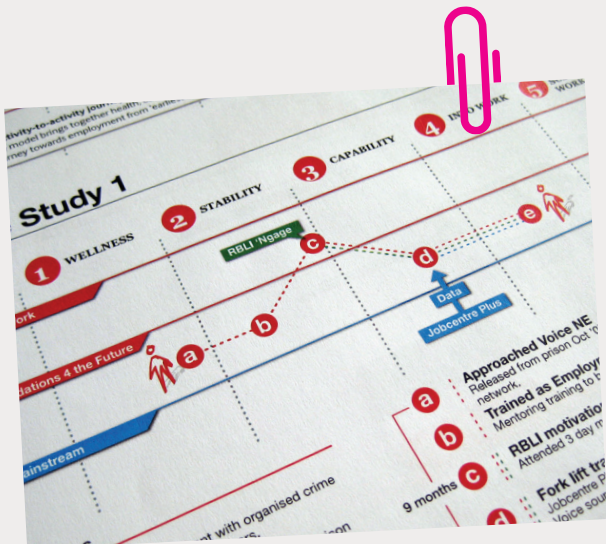
The customer oriented elements of a service are known as the 'front stage'. Identify and map touchpoints and processes that need to happen behind the scenes for the 'front stage' part to work. These might include back office staff, logistics systems, or IT infrastructure. This is known as the 'back stage' part of the service. A Service Blueprint allows you to see the interaction between the front and back stages, ensuring links and dependencies between different service elements are coherent.

Some services might have a range of different offerings and require multiple blueprints. In developing a Service Blueprint it can be useful to work in teams, and carry out an initial pass before developing in detail.

What are the outputs?

A Service Blueprint is a visual map or diagram identifying the key stages, touchpoints and other components that make up a service.

This combination of text and graphics may be supported with photos or illustrations, showing particular touchpoints in more detail or offering additional explanation. Depending on complexity, a service blueprint may contain a key to make it understandable.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



Experience Prototyping

What is it?

Experience Prototyping is a way of testing new service ideas or designs for specific touchpoints.

Experience Prototypes are about communicating what the experience will be like and allow the design team to test and refine their solutions with potential users. They also help build buy-in from partners and other stakeholders.

Making prototypes 'early, ugly & often' is important in the design process. Experience Prototypes don't need to be refined or take a long time to make, it is more important to create something quickly, test it, and then iterate the design. They can vary from paper sketches, to a physical model, to a fully acted out service.

Aims

- Design and test specific touchpoints or interactions
- Find out whether parts of the service meet users' needs and how they can be improved
- Communicate the benefits and experiences the service will deliver to stakeholders, including decision-makers, frontline staff, partners and users
- Gather feedback from potential users.

How can I do this myself?

Experience Prototyping is used to test ideas and gather feedback on potential design solutions.

There are lots of different methods for Experience Prototyping – some such as bodystorming and role play emphasise acting out a service experience. Others focus on creating mock-ups of products or environments. Generally, most Experience Prototypes combine physical mock-ups and some elements of role-play to recreate the service experience.

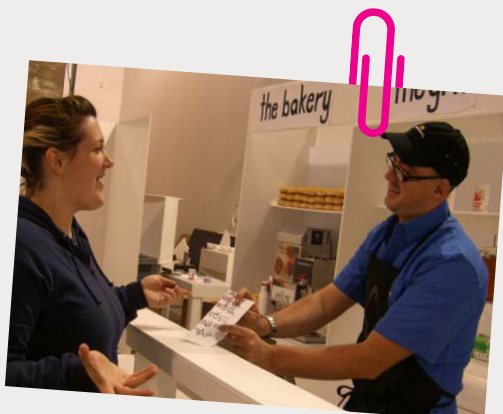
This recreation might be acted out, or documented through photography or video. The style and level of detail can vary from very rough to realistic 'archeology of the future'.

An important part of Experience Prototyping is gathering feedback. Testing should ideally happen with potential users of the service and may take place over a number of hours, days or weeks. Unlike a pilot the goal is to learn quickly and iterate a revised solution.

What are the outputs?

Experience Prototypes should result in a number of physical mock-ups of touchpoints, a number of interactions recreated in some way or a combination of both.

Documentation of Experience Prototyping through video or photography is useful in communicating the insights learned. This allows the user testing and feedback to be shared within the design team and with other stakeholders.





Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



Business Model Canvas

What is it?

The Business Model Canvas is a visual tool for describing and developing business models. Created by Alex Osterwalder and popularised in his book Business Model Generation, it can be applied to both new and existing services.

Aims

- Design and test specific touchpoints or interactions
- Find out whether parts of the service meet users' needs and how they can be improved
- Communicate the benefits and experiences the service will deliver to stakeholders, including decision-makers, frontline staff, partners and users
- Gather feedback from potential users.

How can I do this myself?

In the Deliver phase the Business Model Canvas provides an important reference for implementation – helping translate service concepts into business processes. It can also be used at different points in the design process; in the Discover phase to explore current offerings, or in the Develop phase to test viability of new business models in development.

The canvas is usually filled in as a collaborative exercise during a workshop, documenting the various aspects of a business through nine 'building blocks'. Some of these components may have already been identified throughout the service design process, such as customer segments, channels and the value proposition. Others will need further development. The canvas can be used in different ways, depending on the level of depth required. It can be a quick sketch to develop initial understanding of a business model or used in an in-depth exercise to fine tune particular aspects of a service.

What are the outputs?

The output is a visual representation of the entire business model with all of the key building blocks represented. The completed canvas provides a high level blueprint for a business, including its customer focused, internal operational and financial elements.





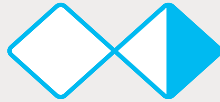
Design methods for developing services

About this document

The double diamond design process

Tools and methods

Tools and methods



Design Scenarios

What is it?

Design scenarios are stories of a future situation or service.

By creating a concrete story about a potential future, or set of futures, Design Scenarios help create shared understanding and enable meaningful discussion.

While Scenarios are used as a tool across strategy and management disciplines, within service design they are mostly used as communications tools and emphasise storytelling and narrative.

How can I do this myself?

Design Scenarios can be used in a number of different ways and at different times of the service design process.

Scenarios can be used in the Deliver phase to communicate preferred outcomes to stakeholders, helping them understand and buy into the service vision. They can also be used as inspiration in the Discover phase of projects – creating imagined futures to inspire and inform decision-making. In the Develop phase they are used to communicate to partners and test ‘use cases’ in a wider context.

Design Scenarios are best developed by small teams, drawing on a range of inputs and expertise to make them as robust as possible. Creating a story through the scenario (perhaps using a previously developed persona) helps to make it accessible and engaging.

What are the outputs?

Scenarios may text outputs or image outputs, or a combination of both. They might be realised as a comic strip or a film, depending on the level of resources available. Design Scenarios should create a compelling story that communicates potential futures in an engaging way.

Aims

- Create shared understanding of a potential future service or situation
- Describing a use case of a particular service in development
- Creating a future vision based on important drivers to support decision-making.





Design methods for developing services

Find out more about the challenge

The following documents provide information about the challenge:

- [Call for entries – the key document, information about everything you need to know about entering the Keeping Connected Business Challenge](#)
- [Food for thought – Some material to provoke, inspire and stimulate thinking about ‘keeping connected’](#)
- [How we got here – find out about how we got here and our Keeping Connected schools project](#)
- [Design methods for developing services – an introduction to service design and a selection of service design tools](#)

For any queries please contact the Keeping Connected project team

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Find out more about the Technology Strategy Board and Design Council

The Keeping Connected Business Challenge is part of the Independence Matters programme, a joint initiative run by the Technology Strategy Board and the Design Council.

The Technology Strategy Board is the UK's national innovation agency. Its goal is to accelerate economic growth by stimulating and supporting business-led innovation.

www.innovateuk.org

The Design Council is a registered charity whose role is to place good design at the heart of social and economic renewal. We provide evidence and demonstrate how design can help build a stronger economy and improve everyday life through practical projects with industry, public services and education.

www.designcouncil.org.uk