BASICS
DESIGN
08

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DESIGN TH!NKING

n
the act or practice
of using your mind to
consider design

ava academia

Stage 1 – Define
Establishing what the problem is.

This is the first stage in any design process and almost always involves generating or receiving a design brief.

The brief
A design brief presents the client's requirements for a job. These may be verbal or written, simple or complex. A brief contains a specific goal that is to be met by the design but it may also be couched in terms that have varying interpretations.

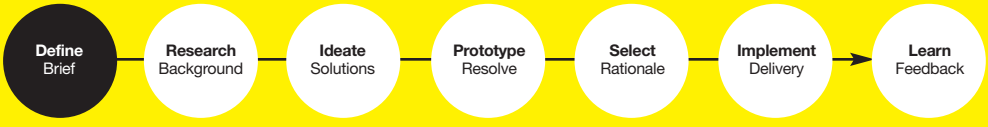
A brief may be as basic as 'we need a brochure that makes us appeal to 20–30-year-olds' or 'we need a brochure that makes us appear cool and stylish'. As a working relationship develops between a designer and a client over several jobs, a greater understanding of what key terms mean is obtained. A designer needs to interpret the brief and define what words such as 'stylish' and 'cool' mean. This ensures that both parties have shared expectations. This may involve questioning the validity of the brief's elements. For example, a brochure might not be the best way to reach out and appeal to 20–30-year-olds, and perhaps an online campaign would be more effective?

Writing and re-writing a brief
Clients have varying experiences of design services. For this reason, the quality of the briefs that they provide will also vary. A brief needs to include anything that will allow the design team to initiate the design process. However, if it is not robust enough, it may need to be rewritten and reworked with the client.

Checklist:

- Do you understand what the client is asking for?
- Does the client understand what they are asking for?
- Do you agree on the definition of terms?
- Does the brief have any flaws?
- Can you manage client expectations?

The first stage is to define the problem accurately



Stage 2 – Research
Collecting background information.

Once the brief has been defined and agreed, a designer starts to search for information that can be fed into the creative process at the ideate stage. This research can be either quantitative, with hard statistical numbers about the size and composition of target user groups, or qualitative, with information about what that user group buys or consumes and what their lifestyle is like. It may be pertinent to build a mental model of a typical user in order to enable the design team to obtain a good feel for what would appeal to them. This includes factors such as education, career, holiday destinations, musical tastes, aspirations and so on.

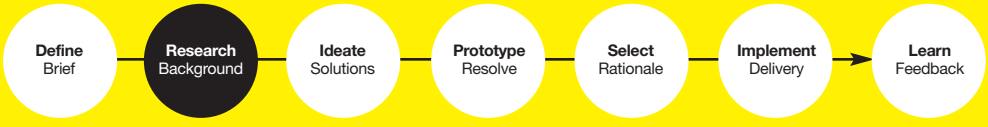
Primary research
A primary source of research is the feedback generated during the learning phase of projects previously undertaken with the same or similar clients. Such feedback provides a starting point with regard to what worked and what did not work with a specific target group.

Secondary research
Secondary research is the information obtained from general secondary sources such as consumer market research reports. These provide the demographic breakdown and historic performance of given markets and market segments, and provide a clear view of how a market is structured.

Checklist

- Do you have feedback from previous projects?
- Do you have a statistical composition of the user group?
- Do you understand the target market?
- What is the education level of the user group?
- What is the typical lifestyle of the user group?
- What are the aspirations of the user group?

The second stage sees a period of research



Stage 3 – Ideate
Creating potential solutions.

During the ideate stage, the design team draws on the research gathered and the constraints established during the define stage. This information is used to create ideas with which to tackle the design brief.

Designers use different methods to ideate, some of which will be discussed in more detail in chapter 3, 'Idea generation'. Ideation methods include brainstorming, sketching ideas, adapting a tried-and-tested design that already exists, taking a top-down analytical approach that focuses on the product, service or company or a bottom-up approach that focuses on the customer or user (both are further explained on page 56). Each method involves a varying degree of creativity and choosing which method to use will depend on factors such as how much money is available and how original the design needs to be.

At this stage, a design team might also choose to harness one of the multitude of art and design movements or paradigms. A design brief can be given a modernist, abstract, constructivist or a deconstructivist interpretation, for example.

As the ideate stage progresses, it will become clear whether there are any misunderstandings or shortcomings in the definition stage and whether sufficient levels of research were carried out. Feedback can be sought throughout the design process to clarify points of doubt with the client and to address aspects that were ill-defined during the definition stage.

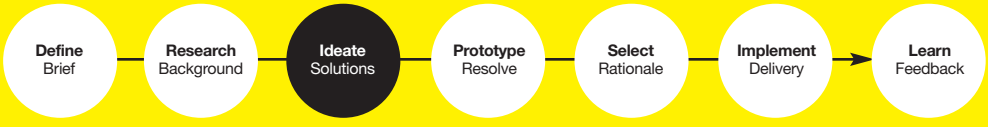
Checklist:

Do you understand the brief?

Do you have sufficient research information?

Which methods will be used for idea generation?

During the ideate stage, design ideas are developed



Brainstorming

Brainstorming is a creative group approach to developing ideas and originating solutions during the ideate stage.

Brainstorming seeks to generate many different ideas that are subsequently pared back to a few possibilities for potential development. The brainstorming process starts by defining the problem to be addressed, selecting group participants that will address it, and forming questions with which to stimulate the creative process.

During the brainstorming session, participants have free rein to make suggestions in a non-critical environment. This encourages the presentation of unusual and potentially useful ideas. Resources such as flip charts or a whiteboard may be used to facilitate the process and to record the ideas that are generated. Following the session, ideas are grouped by type and their suitability assessed in order for a shortlist of the best ideas to be formed.

Brainstorming rules

Do not criticise: this is the most important rule. Criticism prevents people from making suggestions and voicing options. Any idea is valid in brainstorming.

Keep the process manager-free: the presence of line managers may inhibit the flow of ideas.

Avoid resolve: do not start working up or resolving an idea that looks like a possible leader during the session. Instead, carry on generating ideas during the allotted time. Ideas can be resolved following the evaluation stage.

Work to a target: a numerical target helps idea generation as participants move away from standard thinking on the subject in order to achieve it. Focus on quantity not quality.

Clock watch: set a time by which the session should end. This helps to keep the pressure on, forcing more ideas to be generated.

Let go: participants must not be afraid of offering odd, wacky or wild ideas, although this does not mean participants should not take the session seriously.

Be inclusive: the session chairperson should prevent any group members from dominating the session and should encourage all members to contribute.

Themes of thinking

Designers often have to face the challenge of fitting large quantities of information into formats with limited space. Several tenets can be used to inform the design process and help overcome this challenge.

KISS
Keep It Short and Simple, or Keep It Simple Stupid (KISS) is a modern acronym but it employs the same tenets as Ockham's razor, which has been around for several hundred years. The idea is to pare back a design to its essential elements, something that requires a clear understanding of the message that has to be communicated and the audience it is to be directed towards.

Focus
Select only the key message elements as the focus for the design. A company may have many products or projects but the design should focus on the most important ones. Information about other aspects of the company can be provided via other communications such as printed materials, brochures or the web page.

Top down and bottom up
An analytical approach appropriated from information technology development, this looks at a design problem from the system perspective and then 'drills' down to add detail in specific areas (top down), or focuses on the basic elements first and works upwards to link these together as part of a system (bottom up).

Ockham's razor
Ockham's razor is a principle attributed to the fourteenth-century English logician and Franciscan friar, William of Ockham, and it forms the basis of methodological reductionism. The principle states that elements that are not really needed should be pared back to produce something simpler and in doing so, the risk of introducing inconsistencies, ambiguities and redundancies will be reduced. Ockham's razor is also referred to as the principle of parsimony or law of economy.

Stage 4 – Prototype
Resolving solutions.

The ideate stage generates a variety of potential solutions to the design brief. Prior to selection, it may be necessary to further work up the most promising of these solutions. This will allow particular aspects to be tested and will provide a better basis for comparison at the selection stage. In such cases a prototype can be created.

A prototype can be used to test the technical feasibility of a design idea to see if it works as a physical object. Novel packaging or presentation ideas normally require the development of a prototype. A prototype can also test the visual aspects of the design by presenting them as they would be produced. This also provides the opportunity to test, where pertinent, a design in three dimensions.

A prototype gives the design team and client the ability to visualise and handle a design concept, to get an idea of its physical presence and tactile qualities.

As a prototype aims to test particular aspects of a design solution, it must be made so that those aspects are present and can be effectively evaluated. To convey the idea of what it will look like, a prototype does not need to be made with the final materials. For example, architectural models are often made from whiteboard and aim to give a three-dimensional visualisation of a building design. However, if a particular print finish is stipulated, it may be pertinent to present this via a prototype.

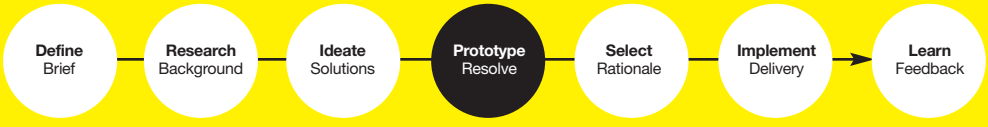
Checklist:

Do all potential solutions require prototyping?

What elements will the prototype test?

What functionality will the prototype have?

Prototyping designs adds detail and resolution, and allows for testing



Stage 5 – Select
Making choices.

The select stage is the point at which one of the proposed design solutions is chosen for development. The key decision criterion is fitness for purpose: does the design meet the needs and goals of the brief, and will it effectively communicate to the target audience to achieve those aims? The winning design is typically that which most closely meets the design brief, or a significant part of it. It may not be possible or desirable to meet all the requirements of a brief within a single design. For example, market segmentation increasingly calls for different marketing and design solutions for different segments.

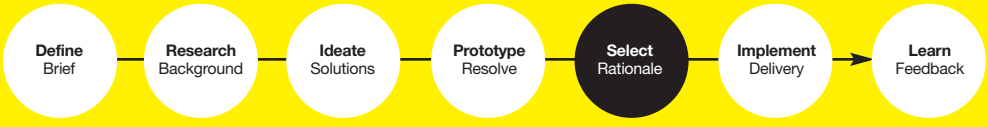
Other factors, such as cost and time, are relevant in the selection process, but these may change as the process develops. The budget available may not provide for the preferred solution and so a more humble option may be selected. However, budget and time constraints should be identified during the definition stage and must be considered throughout the design process.

A studio may advance what it thinks are the best design solutions to the client, and while its opinion and advice are important, the client knows its business, market and clients best and will make the final choice. This could well be different to the designer's preferred choice. At the end of the selection process, the client will sign off the choice, thus initiating the next stage in the design process.

Checklist:

- Does the design meet the defined needs of the brief?
- Does the design resonate with the target audience?
- Can the design be produced on time and on budget?
- Are there other factors to take into account?
- Has the client signed off the design?

The select stage allows only possible designs to be fully developed



Series/Continuity

The design team needs to consider whether a job is a stand-alone piece or part of a series. Design is seldom undertaken in isolation and a design concept is often rolled out through different media and different items within the same media group.

A visual identity and logo will appear on different stationery elements, on company clothing, on signage, on the website and external communications and so on. If a design will form part of a series, implementation thinking needs to consider how the piece will relate to earlier and subsequent versions or editions.

The presence of continuity can add to the collectability of particular pieces, particularly when they deal with subject matter such as sports, music, films or famous personalities. The implementation thinking can help create value for a piece and can enhance its collectability.

Continuity also manifests itself in the ongoing relationship enjoyed between a design studio and a client. This often results in the creation of many jobs over time, often featuring the same core design, identity or underlying ethos for each separate job. This continuity allows a design team to obtain a deep understanding about the client and the development of a product or brand over a period of time. The design team can then maintain and safeguard the continuity of key elements of a design, from one job to the next, and ensure consistent implementation.

Design legs
A design cannot be finite and stationary: it needs to be able to change, adapt, work in different ways and in different settings. A design needs to 'have legs' so that it can go a greater distance than was originally intended. A graphic designer needs to think about this during the design process so that a design idea can evolve.

Adaptability
An adaptable design is one that can be comfortably transferred across different formats, sizes and distribution channels. To be adaptable, a design must be scalable: it must continue to communicate effectively, even if its scale is increased or decreased dramatically.

Stories
A final design should be the starting point for many possible future manifestations and uses and so a designer needs to ask whether a design has a narrative that can be expanded, extended or broadened. A design that does will be easier to adapt in the future to fill a new market segment or reflect changing tastes.

Flexibility
A flexible design is one that can sustain broad appeal across different applications to reach the same target audience in different environments, or that can be used in different settings to reach different target audiences. Instilling flexibility in a design can be achieved by steering clear of controversial concepts and avoiding the use of elements that may date rapidly.

Mrs Massey's (facing page)
In creating a design for food products from Mrs Massey's delicious delectables range, Ziggurat Brands needed to create something that would be transferable across a number of disparate items. The resulting design features a pattern composed of an eclectic mix of kitchen utensils. The design has 'legs' in that in addition to being used on the product packaging, it also can be applied to other promotional items such as the Christmas card (bottom). The design is both interesting and effortless – it does not feel forced or out of context.

Presenting ideas

Potential design solutions have to be presented to the client, who will then choose one for implementation. Presenting ideas well is crucial; a good idea presented badly can fall at the first hurdle.

The candidate solutions need to be presented in such a way that the client can appreciate and understand the thought processes behind them and the messages they are trying to communicate. Each solution should be presented in the same way, where possible, so as not to introduce any bias towards one particular solution. The design team can state which is its preferred candidate, but the final decision is the client's.

The artwork for the design is typically presented on white boards so that the clients can take them away and think about them. This includes mock-ups at actual scale. This stage may also include a computer presentation using Powerpoint or similar software.

Don't assume
When presenting ideas, it is important not to make assumptions about how the client will assess them or the information they will need to make a decision. The presentation should include all pertinent information, including a clear idea about the scale of the final production. It is important for the design team to practise a presentation in order to ensure that it contains all relevant information.

Checklist:

- Is the focus on key information and visuals?
- Have bullet points been used for conciseness?
- Have key decisions been explained clearly?
- Have visuals been printed to a high quality?
- Are visuals mounted on boards for clients to handle?
- Have you practised your presentation?
- Are there any spelling or grammatical errors?
- Have terms been used consistently?

‘Types’ of prototype

A designer can prototype a job in different ways to test or check different design ideas.

A protoype can also present design ideas to other people, such as the client, so that the concepts involved can be readily understood.

Sketching
Sketching enables a designer to rough out a basic visual idea and the positional aspects of the different design elements. It is a rapid and cheap means of resolving general design issues for a given job.

Model
A replica of a design that allows people to see in three dimensions; a model can have varying degrees of functionality, ranging from simply being a replica of the final shape, to having working components. Models test, respectively, the visual aspects and the functional aspects.

Maquette
A three-dimensional scale replica of a design that allows people to get an overview of it in relation to its setting or location. A maquette brings design drawings to life and is often used in architecture to give an idea of what a building will look like within the context of its location.

Printer’s dummy
A printer’s dummy is a full-scale mock up of a book, produced using the specified stocks and materials. This tests how well materials work together and gives an indication of the tactile elements of the physical product.

Scale
All prototype methods use scale as an integral part of the testing approach. Maquettes typically use scale to reduce a large design into something that is simpler to digest; models can be actual scale, reduced scale or even enlarged scale in order to give a reliable representation of the design; a printer’s dummy is produced full scale; and poster ideas may also be prototyped at full scale to see if they communicate well at a distance.

Stage 6 – Implement

Delivering the solution to the design brief.

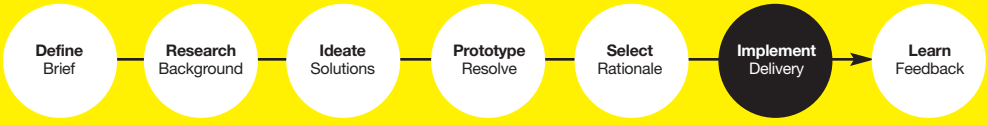
During this stage, the designer passes the design artwork and format specifications to those who will be supplying the final product. This might be a printer, web builder or fabricator. This moment provides a good opportunity to confirm the production specifications such as print quantity and what you expect to receive. For example, a printer is usually given some leeway to account for set-up in the different steps of the the print process. This means an order for 100 flyers may not result in the receipt of 100. It may be more or may be less. By double-checking, everyone is clear about the level of expectation, and what the client expectations are.

The design team typically provides project management during this stage, in order to ensure that the end results meet design expectations, and to keep the project on budget and on time. Proofing may be necessary during implementation if a print job is involved. This will ensure that what is printed is an accurate reflection of the artwork supplied. For websites and other electronic media, proofing means testing functionality as well as the visual appearance. This stage ends with the final delivery to the client of the finished job.

Checklist:

- Has the client signed off the designs?
- Have printers or other production professionals been booked?
- Has the artwork been delivered to production professionals?
- Has the job been proofed against the design?
- Has the finished job been delivered?

The implement stage of the design process sees the design put into production



Stage 7 – Learn
Obtaining feedback.

The final stage in the process involves learning from what has happened throughout the design process. This is a feedback stage during which the client and design agency might seek to identify what worked well and where there is room for improvement.

Following the implementation, the client may begin to look for or receive feedback on how the product has been received by the target audience and how beneficial its effects on the target audience have been. Thus, a design firm can find out how the audience responded to the design.

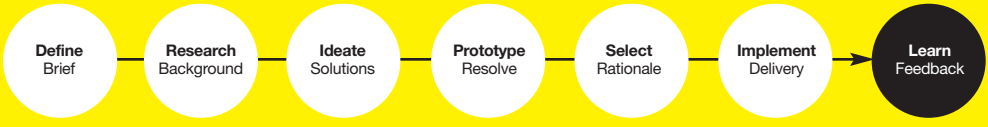
The feedback generated at the end of the process becomes a learning opportunity for future projects. It forms one of the sources of information for the define and research stages. Any problems with the design may have been because of inadequacies in the brief or lack of understanding of key points. Through the feedback process, designers and clients build up a shared understanding over time. This serves to facilitate the production of increasingly optimal solutions in the future.

Although the learn stage appears to be the last of the seven that we've identified, it actually occurs throughout the design process. At each stage you should take stock of where you are, where you are heading, what's working and what's not. The ability to learn from each stage will enhance the development of design thinking, and will help to generate radical and successful designs.

Checklist:

- Has dialogue with the client about the success of implementation taken place?
- How successful was the implementation?
- What feedback has the client received or commissioned?
- What aspects can be improved?

The learn stage is a valuable chance to refine and learn from the design thinking process



Example project

These pages show the various different stages of the design process within the context of an actual design job. The sequence shows the design thinking at each step of the process.

Stage 1 – Define
Sovereign is the parent organisation to a number of housing associations in England and as such, over time, has acquired a number of identities and brands. Design studio The Team was tasked with creating a new visual identity to bring all the different aspects of Sovereign's business under one overall umbrella design. The Team's brief was to create a strong brand identity using the Sovereign name. This would then need to be paired with a description to clearly identify the sub-brand, and would require a unique idea at its core in order to help the associations stand out from their competitors.

Stage 2 – Research
The Team undertook research to find out what made Sovereign different from other housing associations. This research included interviews and workshops with the client and consultation with the regional associations it had acquired in order to get a feel for the values and vision they had for the brand. An audit of competitors was undertaken to better understand the visual world that housing associations work in. The research showed that many felt that Sovereign's ability to balance the needs of current customers, while planning and developing for future customers, was its strongest asset. A web-based search for imagery and icons to represent the concepts of continuity and growth was also carried out to help generate ideas for the visual stimulus for the identity.

Research included a web-based search for images using a circle or loop, representing continuity and growth. This would form the central part of the visual identity.

The design team made a series of initial sketches (above) exploring and developing ideas for a symbol. Different symbol ideas were worked up and given different treatments to develop and test them (right).

Stage 3 – Ideate

The initial ideas of the design team had the central concept of planning for today as well as tomorrow. The team wanted to create a shape or expression that could be used for the group logo as well as all its sub-brands. Initial sketches looked to create an abstract shape to represent the core idea of continuity and growth, which could be used to create larger graphics or expressions across printed materials to support the logo and brand concept. The initial ideas that went forward all carried a strong sense of this and appeared intricate and made up of many parts or sides.
This helped reflect the different elements and areas of the client's business.

Stage 4 – Select

Three different design ideas were advanced to the select stage. The first was a Möbius strip idea, rendered in a 3D form to give a dynamic, sculptural and organic feel. There are many possible permutations for this logo shape, but the more angular shape used adds a feeling of energy and movement. The second route evolved from a two-sided yin-yang balance into a constantly moving and intertwined form. The third unites two interdependent shapes with a feeling of continuity and strength. These ideas were presented to the client on boards to facilitate discussion of each option.

Presentations of the three design ideas for selection.

Stage 5 – Prototype

The chosen design was refined using different treatments. The symbol is derived from a Möbius strip (a surface with only one side and only one boundary component), a never-ending shape that flows back into itself as its contours are followed by the eye. This reflects the relationship between addressing the changing needs of current customers while planning and developing to satisfy those of tomorrow. The sculptural and contoured form gives a feeling of strength and stability while the fluid triangular shape and dynamic, translucent shading captures an energetic and forward-looking spirit that is reinforced by the orange colour. The symbol is complemented by an uncomplicated yet powerful logotype that provides a strong and balanced relationship between the two elements. Lowercase lettering creates a professional, streamlined appearance.

Different forms of the resolved logo.

Stage 6 – Implement
The final design was rolled out across Sovereign's brands and sub-brands. This included all printed materials, such as stationery, ID cards, report covers, brochures and newsletters, as well as signage for vehicle livery and clothing. The logo also featured on signage around its corporate and local offices, as well as on building sites where Sovereign works to develop land and build new homes.

The final design was rolled out across Sovereign's brands and sub-brands.

Stage 7 – Learn
Learning occurred throughout the design process. The select process gave the design team a clear idea of what solutions resonated with the client, while client feedback following implementation would indicate which aspects were well received by its customers and which were not.