VERT

VISUAL
EMOTIONAL
RESPONSE
TEST

A test kit to perform BERT tests on your visuals
BETA version, 2

A part of the research project
VISUAL COLOUR PROJECT

Zealand

Developed by
Daniel Uhrskov, © 2024

VERT TEST METHOD

INTRODUCTION

VERT is a rapid and carefully structured test method that evaluates how people react to visual stimuli, especially colours and colour combinations. The test guides you through 8 key steps, from designing the visual content to recruiting test subjects and evaluation. The aim is to understand how colours affect people's perception and behavior. This is achieved via an axis that has an opposite pair of adjectives (polarity parameters) at the end. In short, the test subjects are guided by these axes to place their opinion between two poles. It could be: Is this colour more A) Professional or B) Humorous, or A) Modern or B) Traditional. The next page gives you an overview of the 8 steps of the testing methodology.

You can use this test method to test your visual design choices such as colours, fonts, image selection, layout, mood board or much more. The test method makes it a structured discipline to test visuals, so you avoid having to explain too much to your test subject. In addition, the test is good for getting more feedback from the test subjects than you get with a normal "think-aloud test". However, the test is close to this test in terms of methodology. The test provides an immediate response to a visual stimulus. Below is what the BERT test originally stands for:

BERT: BEHAVIORAL, EMOTIONAL, RESPONSE TEST

It's difficult to date the BERT method, but it is primarily used in marketing. Nowadays there are a few online sources about how you can be inspired to work with the axis, but no research, experiments or evaluation of the method. In developing this new test method, I

want to specialize BERT for testing primarily colours, but also other areas such as typography, layout and mood boards. In other words, disciplines that relate to the visual and that's why I call it "VERT":

VERT: VISUAL, EMOTIONAL, RESPONSE TEST

The procedure, concepts, execution and manual are described in detail in this booklet.

This test kit has gone through several iterations as I have observed approximately 200 students using it and receiving their feedback in questionnaires. It has been customized based on the parameters of making it intuitive, simple and easy to understand. Secondly, to make it as unbiased as possible. Some feedback was that the test actually limited the experience and the test person's perceptual description. Therefore, I incorporated an element of openness into the test with an axis that is open. But the whole evaluation of my test was basically positive and confirmed my thesis that

'it is difficult to put words (language) to ones visual/aesthetic experiences - especially in a test session, both for designer and test subject'

I have observed - again and again - in my research project that it can be difficult for professionals and students to implement user feedback on the visuals during the design process. And when it is facilitated, it is often difficult to verify which emotions and stimuli are in play. We lack methods and tools to test colours (and other visual elements). As mentioned, there are plenty of inspirational books on colours and palettes, but less on the methods and tools.

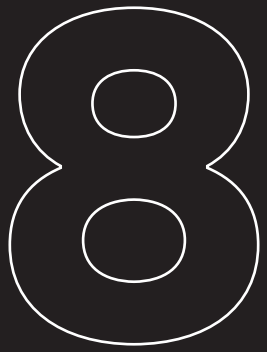
I have thereafter observed that VERT helped and nudged both designers and test persons to start a conversation about the emotional stimuli on a visual product. It helped to create a structure and language during the test session. This could be the observation of a difficulty among test subjects to articulate their emotions in relation to a visual stimulus. It is also an identification that it is difficult for designers to establish a rewarding test environment and facilitate a think-aloud test with valuable outcomes.

THE MISSING LINK

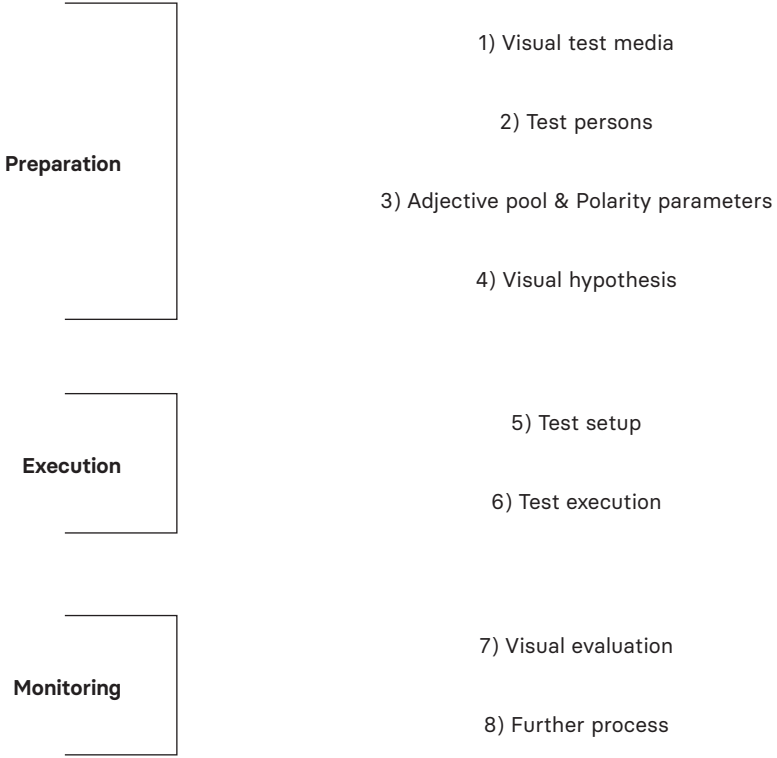
It's relevant to mention Marty Neumeyers term: *The Brand Gap* (1: Neumeyer, 2006) as a perspective on my thesis. Neumeyer claims, that we lack skills and language to understand 'visual rhetoric' as opposed to verbal and written rhetoric. Similarly Anne Mette Hartelius describes a design gap ('design gorge') between the message we communicate in words and the visual design product, simply because we lack theory (2: Hartelius, 2023).

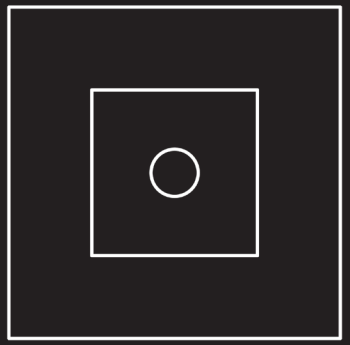
I call it "The missing link" in this research project. This refers to the fact that it is difficult for designers to argue for their visual design choices, just as it is difficult for test subjects to articulate their feelings in relation to the visual stimuli in a test session. In a pragmatic and practical way, the VERT method addresses this missing link and provides a framework tool to create a language (a rhetoric) in the moment of testing. Where Hartelius tries to create a visual dictionary and a model of emotion (a catalogue of visual strategies) to 'fill the gap', I will provide a facilitation tool that can help in the moment of testing to 'eliminate the missing link'. With VERT we try to test peoples connotations and identify eventual patterns and conventions. Most important we try to verify our own declared design intention.

VERT consist of 8 steps, that is carefully described in this manual.



STEPS


Preparation
1) Visual test media
2) Test persons
3) Adjective pool & Polarity parameters
4) Visual hypothesis
Execution
5) Test setup
6) Test execution
Monitoring
7) Visual evaluation
8) Further process



1

Visual Test Media

WHAT SHOULD BE TESTED AND WHY?

This first step involves creating the visual test media, which is the colour composition (or visual material) to be tested. This is typically a board of some kind. This presents the choice of colours (or other visual materials).

Next, it's important to try to reproduce the colours as accurately as possible. This is about calibration and also about printing the colours if your final product is print, for example. Test the colours on a screen if your final design is on a screen.

It can be tricky to decide and argument for how your test media should look. Especially if you don't know how and where the colours are applied. But you should consider the test media as a kind of moodboard where you can experiment and test different visual compositions that could later be applied to your design.

HOW MUCH COLOUR & HOW MANY COLOURS?

Think about how much of each colour there is on your test media. Do all the colours take up the same amount of space? Or is there a larger area of one colour in the design you've created? Some colours should take up more space than others on the test media. Some colours may play a small role - maybe in details. But they can still have a big impact. One example is call-to-action (CTA) colours, which are a kind of eye-catcher or strong "spot" colours. Try to reproduce the amount of colour for them too.

Also, think about background the colour. The background colour can have an enormous impact on the perception of the rest of the colours. Choose the background that you intend to use in the final product. Finally, you can also test different background colours to find the best match.

To conclude, it is not only about the colours you choose, but also the amount of colour you pplace on the test media. If your design uses a lot of beige and a little bit of black and red, then the test media should reflect this too.

HOW MANY TEST MEDIAS?

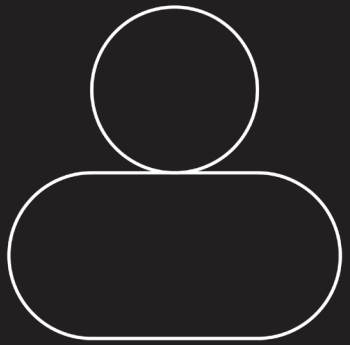
It is good to have some different visual test medias to test various design directions. Not too many though as the test person can experience what i call 'visual fatigue' or 'perceptual overload'. This can be a barrier in user testing within UX (3: Dewra, 2023) (4: DeMarks). It's better to perform fewer and more quality-based test on each person and 'evolutionary develop' the same visual test media over time.

TESTING NOT ONLY COLOURS

As described earlier, you can use VERT to test other visual elements than colours. For example typhography, layouts, moodboards etc. Think about the test media here as well: Consider that all parameters are playing role. Imagine that you test a font. It would not only be the letter design that is tested, but also the styling, the font hierarchy, the size, the font colour, the spacing etc.

THAT GOOD ADVICE

Create a visual test media that represent the colour choice as realistic as possible, but don't add elements that can bias, prime or affect the test person such as word, symbols and so on.



2

Test persons

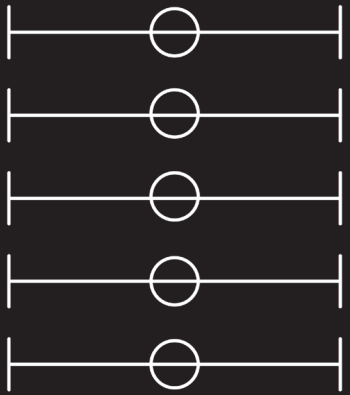
WHO SHOULD YOU TEST?

Finding the right test subjects is crucial for the reliability of test results. Recruitment involves identifying and selecting participants that represent the target audience for which the visual test medium is intended. This can include factors such as age, gender, cultural background and previous experience with colour. You can use the knowledge you have from your target group analysis, data collection or desk research.

This research project and VERT is relying on the standards within user testing and target group analysis in UX-design, such as Design Thinking or other iterative design frameworks. Therefore I will not elaborate further on this.

LIFE STAGES

I particularly recommend considering another perspective, namely "life stages". With this view we would rather ask: Where is the test person in life and does this 'life stage' fit into the target group that we want to appeal to? We focus less on age, gender and location, but more on the cultural belonging and individual identity. "*A 27-year-old woman can be in several life stages: student, pregnant, new mum with young children or mother of a toddler. Her life stage says much more about her consumption than her age - which is why life stages are highly relevant*" (5: Kongsholm, 2020).



3

Generation of adjective pool & polarity parameters

A: GENERATE ADJECTIVES

In this step, a list of adjectives is developed that can be used to describe the emotional and behavioral reactions that the test subjects may experience. These adjectives will later be used by the test subjects to give their answers. It's important to think of more simple and emotional adjectives that are easy to understand. See the list of adjectives listed later in the manual. You can start by brainstorming and writing down a bunch of adjectives and then later select the final ones. The typical words will be adjectives, but you can also come up with other word types.

Examples of an adjective pair could be: Cold - Warm, Happy - Sad and Expensive - Cheap.

B: PUT PAIRS TOGETHER

Polarity parameters are opposing pairs of adjectives that test subjects will be asked to rate the visual test medium on. This could include parameters such as "positive vs. negative" or "calming vs. exciting". The choice of polarity parameters should be in line with the purpose of the test; what do we want to ensure the colours signal?

How many? In my experience, you shouldn't test more than 10 polarity parameters, as test subjects can become mentally unfocussed by prolonged exposure to a visual stimulus.

The polarity parameters are simply the selection of the adjective pairs you brainstormed in the previous step (3). Write them down on a test sheet, which you will find later in this document.

POOLS

For VERT, a number of adjective pools have been developed that you can use or take inspiration from. The different sets of adjectives are based on different areas of visual products or areas of the visual product. More can be developed and we encourage you to develop your own pool for exactly what you need to test. Below you can see examples of area-specific sets of adjectives:

Colours

Typography

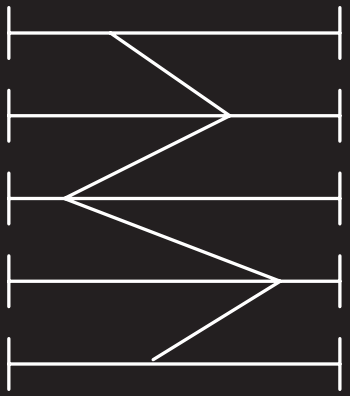
Product design

Layout

Logo

Graphics

Find an adjective pool at the end of this manual.



4

Visual Hypothesis

A visual hypothesis is developed based on the expected reactions to the chosen polarity parameters. This step helps to define what you expect to observe during the test and can also be used to hypothesise how the visual test medium will affect the test subjects' behaviour and emotions. You could say that it is this path through the polarity parameters that the test subjects should ideally take if your design is to signal your hypothesis. Of course, the polarity parameters must be identical to the test sheet.

You'll find a hypothesis sheet later in this document where you can draw the line.

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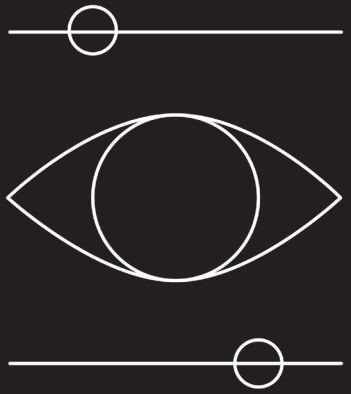


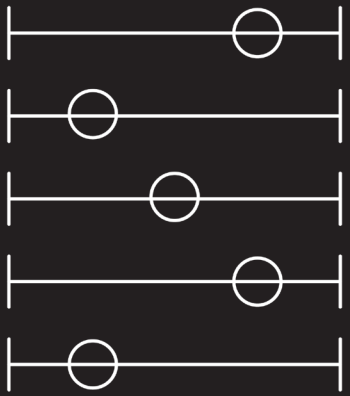
5

Preparing a test

Start with a presentation of the visual test medium and then give instructions to the test subject. Explain to the test subject what the polarity parameters are; that they must draw a line on the axis between the poles. It is important to ensure that the test is consistent and objective. Never bias your test subjects with loaded words, tone of voice or facial expressions.

This manual suggests using a printed sheet where the test person can manually draw in their answers with a pencil. However, the test can also be executed digitally if you can facilitate the polarity parameters on a computer.

The test sheet can be found later in the document.



6

Performing the tests

This is where the actual test is conducted with the test person. Give the test person plenty of time to fill in the current polarity parameters. Note down any comments and questions that the test person asks along the way.

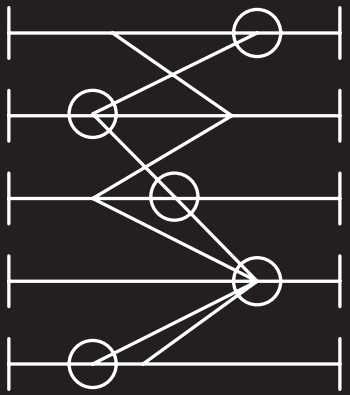
I recommend testing 5-8 test subjects if you want a validated and nuanced test result. Here I follow a common guideline in user experience and UX, where you want user involvement in the earlier phases to identify the most common issues early in the design process (6: Nielsen, 2000)

For more in-depth and generalisable results, it may be necessary to perform tests with more users, typically in the range of 15-20 users as I estimate. This can provide a more complete picture of how different users perceive the visual.

It is important to understand that the number of users is not necessarily the only determining factor in validating the results.

NUMBER OF TEST EXECUTIONS

Find a number of test persons that corresponds to how many times you want to execute the VERT test. As earlier described, VERT can be used both quantitatively and qualitatively, but a good key number to follow is the perform the test 5-7 times or until you can observe a pattern or have your thesis confirmed.

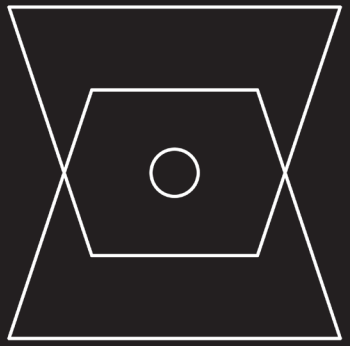


7

Visual evaluation

After the test is completed, the results are analysed and evaluated. This includes a comparison of the test subjects' reactions to the visual hypothesis and the polarity parameters. You can then evaluate whether there was a small or large spread in the responses and how the average compares to the hypothesis. You can then adjust the design and test again. The results can be used to inform decisions about design and colour choices within that project or product.

Draw all the answers on an evaluation sheet, which you will find later in this document. With a different colour, draw the hypothesis line so you can visually compare the distraction.



8

Further process

Furthermore, the intention is to continuously update your design in several iterations and to perform the test several times in a series until you hopefully end up with a fairly synchronised line (between hypothesis and answer).

Each of these 8 steps plays a crucial role in conducting a thorough VERT colour test. It ensures insightful and beneficial data that can be used to qualify your visual design decisions.

Adjective Pool

COLOURS

Dark - Light
Sad - Happy
Subdued - Lively
Quiet - Noisy
Serious - Funny
Traditional - Modern
Gloomy - Light
Elegant - Crazy
Violent - Peaceful
Complex - Simple
Minimalist - Sumptuous
Classic - Experimental
Hard - Soft
Retro - Futuristic
Predictable - Surprising
Natural - Artificial
Raw - Processed
Insecure - Confident
Usable - Decorative
Organic - Geometric
Complicated - Simple
Sad - Encouraging
Traditional - Radical
Minimalist - Maximalistic
Elegant - Funky

Gentle - Sharp
Neutral - Colourful
Stable - Alternating
Controlled - Wild
Creative - Conventional
Cosy - Cold
Seductive - Deterrent
Nostalgic - Innovative
Serious - Casual
Concrete - Abstract
Joyful - Gloomy
Comfortable - Uncomfortable
Lively - Lifeless
Boring - Interesting
Dry - Moist
Exclusive - Regular
Relaxed - Formal
Valuable - Worthless
Deep - Superficial
Raw - Refined
Impersonal - Personalised
Bitter - Sweet
Calming - Nervous
Organic - Artificial
Fragile - Robust

Clear - Muddy
Spicy - Mild
Discreet - Pronounced
Cosmic - Earthly
Hand-drawn - Mechanical

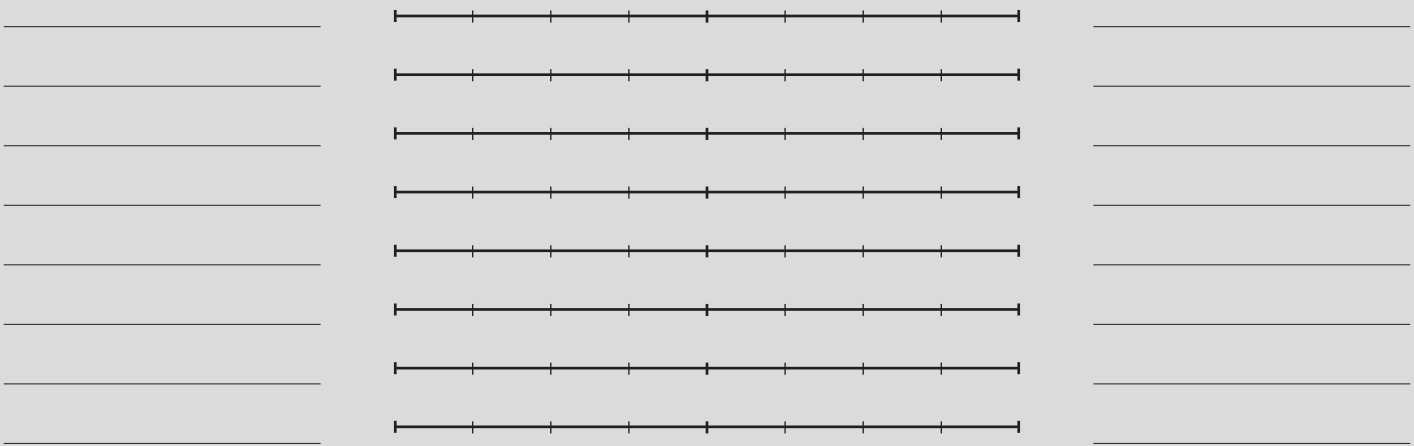
HYPOTHESIS SHEET

VERT TEST

Manual for testing **visual products** in the design process

HYPOTHESIS SHEET

Plot the optimal line down the axes



EXAMPLE HYPOTHESIS SHEET

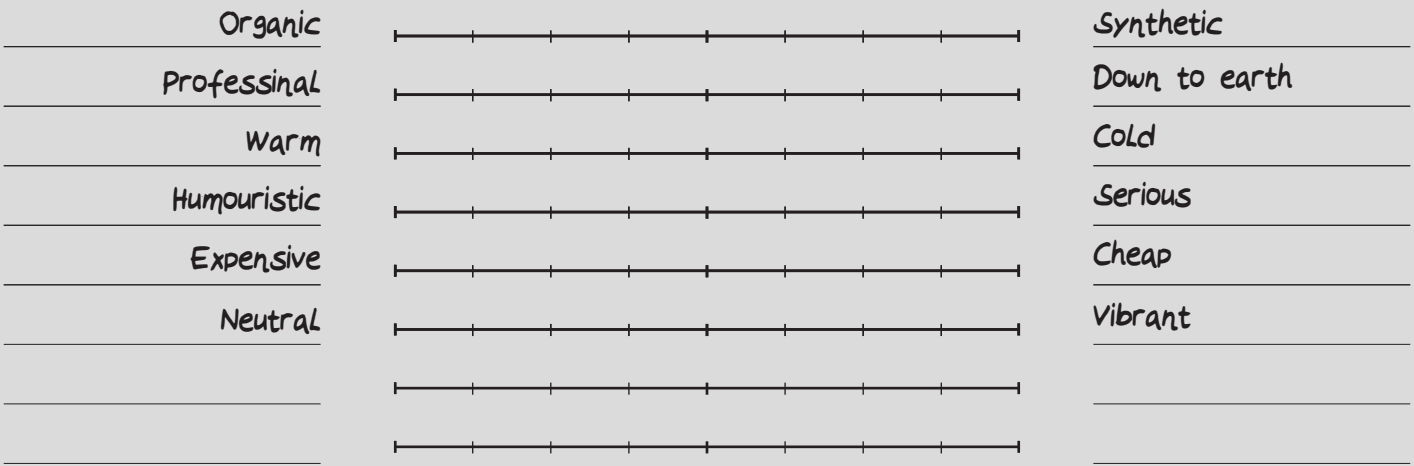
VERT TEST

Manual for testing **visual products** in the design process

Example

HYPOTHESIS SHEET

Plot the optimal line down the axes



EXAMPLE HYPOTHESIS SHEET

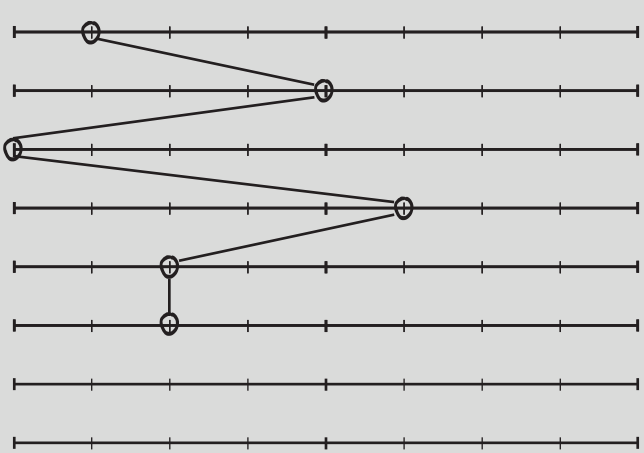
VERT TEST

Manual for testing **visual products** in the design process

Example

HYPOTHESIS SHEET

Plot the optimal line down the axes

Organic		Synthetic
Professinal		Down to earth
Warm		Cold
Humouristic		Serious
Expensive		Cheap
Neutral		Vibrant

EXAMPLE
TEST SHEET

VERT TEST

Manual for testing **visual products** in the design process

Example

TEST SHEET

Draw a line on the axis between the two poles

Organic		Synthetic
Professinal		Down to earth
Warm		Cold
Humouristic		Serious
Expensive		Cheap
Neutral		Vibrant

GOOD ADVICE

Leave one or two lines empty so the test person can create an axis on their own

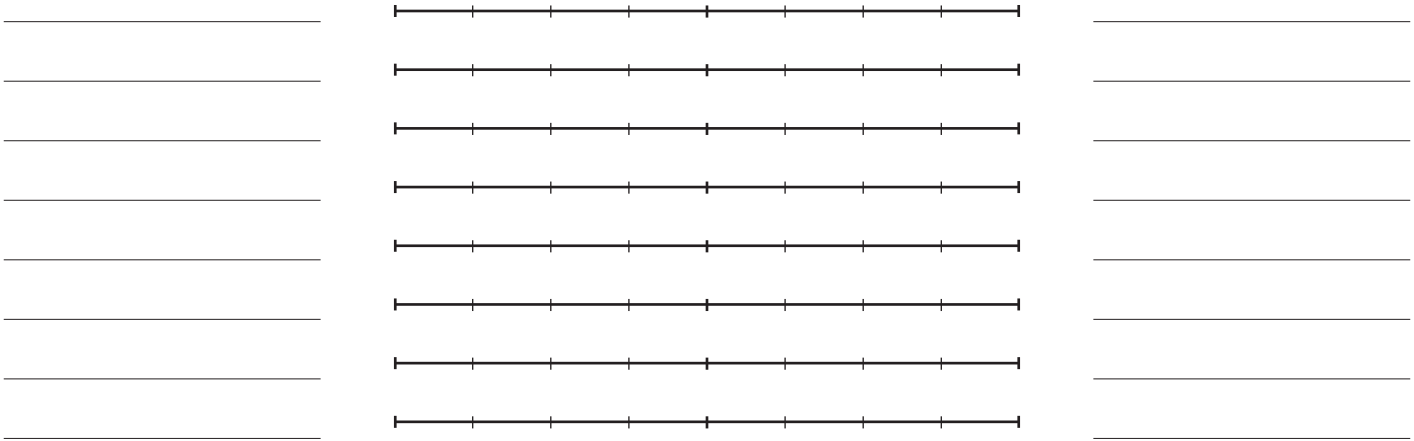
TEST
SHEET

VERT TEST

Manual for testing **visual products** in the design process

TEST SHEET

Draw a line on the axis between the two poles



GOOD ADVICE

Leave one or two lines empty so the test person can create an axis on their own

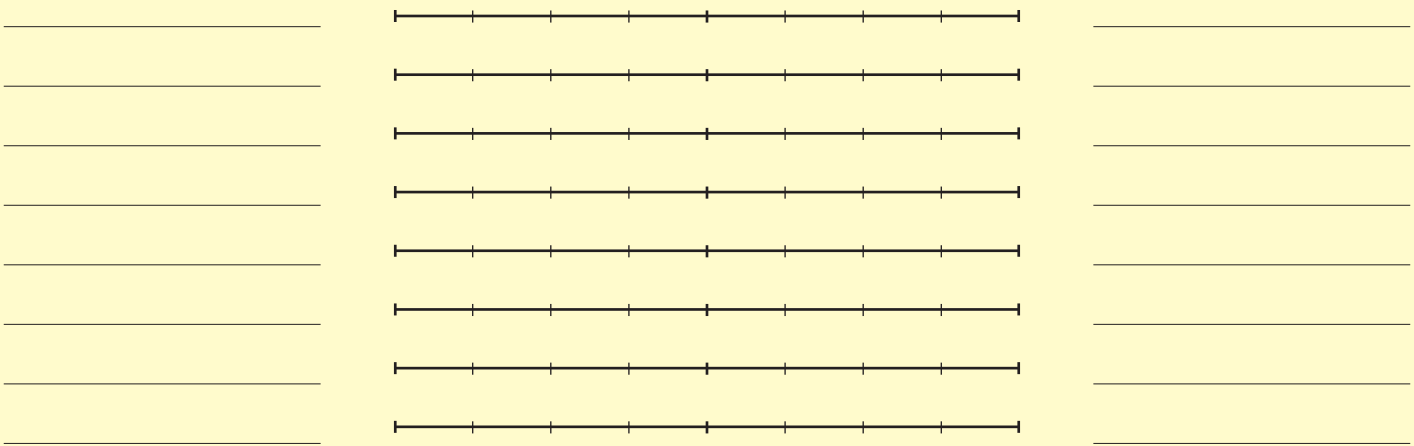
EVALUATION SHEET

VERT TEST

Manual for testing **visual products** in the design process

EVALUATION SHEET

Draw in all the response lines from the test subjects and see the visual distribution. Finally, draw the hypothesis line with a different colour/type of line



SOURCES

(1) M. Neumeyer (2006) The Brand Gap. Indianapolis: New Riders.

(2) A.M. Hartelius (2023) Visuel kommunikation i et følelsesperspektiv, Forlaget Ajour, Page: 16-17.

(3) Hardik Dewra (2023) Decision Fatigue: The Hidden Enemy of User Experience! https://bootcamp.uxdesign.cc/decision-fatigue-the-hidden-enemy-of-user-experience-f62c061d5156

(4) Lauren DeMarks (Unknown year), Avoid user testing fatigue with this 2-part approach, OpenField, UX Research & Design for Better Learning Outcomes , https://openfieldx.com/overcome-user-testing-fatigue-tactics/

(5) Louise Byg Kongsholm: https://livsfaser.dk/, 2020, Also published as book

(6) Jakob Nielsen, 2000, https://www.nngroup.com/articles/why-you-only-need-to-test-with-5-users/)

VISUAL
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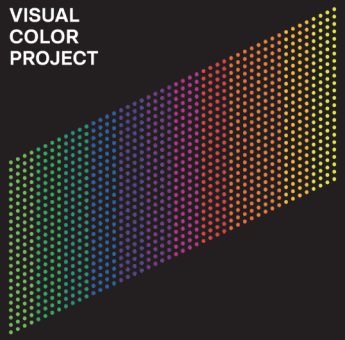

DEVELOPED BY DANIEL UHRSKOV, 2023

STILL UNDER DEVELOPMENT