

## Evaluating

**Designs detailed and relevant testing methods**, which generate data, **to measure the success of the solution**

*Tests that could be tried include:*

*Expert Appraisal – Field Trial – Performance Tests – User observation – User Trials*

**Qualitative tests can include:**

- using a questionnaire to find out if the target audience likes the look of a product
- surveying students to find out which parts of a video game they found too easy and which were too difficult
- working with a taste panel to find out if a target audience likes a food product
- interviewing an expert after he or she has interacted with a solution
- performing a user trial by giving a toy to children to play with and observing reactions.

**Quantitative tests can include:**

- timing users who are tasked with finding a particular piece of information on a website
- measuring a product to ensure it is the correct size and within weight limits
- beta-testing interactive media to find bugs
- running performance tests to determine the strength of a product
- checking the capacity of a storage device
- counting the number of hits on a website over a set period of time.

Specification	Testing Method	Evidence from Test

## EXAMPLES of Testing Methods

### Expert appraisal

A person considered an expert in the use of similar products is presented with the solution, given time to interact with the solution and then interviewed on aspects of its success. The expert has particular knowledge and skills that allow him or her to make judgments on the success of the solution. The expert may be the client.

### Field trial

A field trial is a test of the performance of a solution under the conditions and situation in which it will be used. For example, an interactive information point (developed in HTML) for a museum exhibit may be tested by the exhibit visitors in the museum, structured as a user trial or user observation.

### Performance testing

The performance of a solution is tested under the conditions in which it would normally be used. Quantitative data is collected through a variety of tests such as:

- destructive tests assessing impact strength or flammability
- cyclic tests
- measurement of physical properties such as weight and size
- timed tests for web pages to load
- ease of navigation through an interactive story, game or website.

### User observation

The user is presented with the solution and is set a task to achieve with little or no guidance. The user's interaction with the solution is observed and recorded.

### User trials

The user is presented with the solution and guided on how to use it. The user is asked questions as he or she interacts with the solution or is given a survey to complete. User trials may include focus groups.

The design of interview or survey questions needs to be targeted to draw out responses that assess the solution against the specification.

## EXAMPLE - Comparing the Product Against Existing Products in the Marketplace and Noting Strengths and Weaknesses

### Test – comparison with existing product



Existing product



My product

#### Advantages of my product

My product looks more interesting and colourful

There are more spaces to put larger objects

My product does not need extra spaces around the sides (to open the drawer etc.)

My product would be easier to hold accessories that are needed to be hanged (necklaces would not be tangled)

My product displays the accessories more clearly, as it is not kept inside the drawers.

#### Disadvantages of my product

There are less places to keep the accessories

The existing product is more organised

The existing product has a mirror which would be convenient to try on the accessories

The accessories/holder would be covered by dust as it is not kept inside

The existing product uses mainly of soft materials which would not scratch the accessories

From the above table comparing my product and the existing product, it can be seen that my product has both advantages and disadvantages. Although it can be seen that most of the disadvantages are based on the quality of the product, such as the mirrors, problems with dust, scratches, which I think that as a teenager those problems would not matter as much as adults, as we do not have much of expensive accessories. Therefore I think that my product already suits with the age of my target audience.

## EXAMPLE - Feedback from Users

From the surveys, I can conclude that my product met most of my design specification. My product has three sections for putting different writing utensils and all sections are at least 11cm deep. Every section can store more than 20 pencils and I have a drawer that can put more than 3 erasers. My product is made out of plywood and is joined well using glue and nails. I finished my product in time (10 create classes). For my fourth design specification (The design theme must be aesthetically pleasing to a female teenager around 14 to 16 years old, the colour theme will be plain solid colour), 6 people said it looks excellent and 5 said it looks good. Some like its simplicity and they said that the colour theme and popsicle sticks make the product look pretty. However some also say that it is a little bit too plain and not very attractive.

What most students like about my product is its function and how it can store many stationary. They also like the design: circular form and decorations (popsicle stick).

What they said can be improved is the drawer because it looks a bit small and it didn't fit well, therefore it is hard to pull out. They also said I should make each section less deep and wider because it is quite hard to pull the pencils out. They also said to change the colour theme from white to yellow or add more colour in the front (because it is too simple).



# Analysis