

Chapter 13

An evaluation framework



The aims are:

- Introduce and explain the DECIDE framework.
- Discuss the conceptual, practical, and ethical issues involved in evaluation.

DECIDE: a framework to guide evaluation

- Determine the *goals*.
- Explore the *questions*.
- Choose the evaluation *methods*.
- Identify the *practical issues*.
- Decide how to deal with the *ethical issues*.
- Evaluate, analyze, interpret and present the *data*.

Determine the goals

- What are the high-level goals of the evaluation?
- Who wants it and why?
- The goals influence the methods used for the study.
- Goals vary and could be to:
 - identify the best metaphor for the design
 - check that user requirements are met
 - check for consistency
 - investigate how technology affects working practices
 - improve the usability of an existing product

Explore the questions

- Questions help to guide the evaluation.
- The goal of finding out why some customers prefer to purchase paper airline tickets rather than e-tickets can be broken down into sub-questions:
 - What are customers' attitudes to e-tickets?
 - Are they concerned about security?
 - Is the interface for obtaining them poor?

Choose the evaluation approach & methods

- The evaluation method influences how data is collected, analyzed and presented.
- E.g. field studies typically:
 - Involve observation and interviews.
 - Involve users in natural settings.
 - Do not involve controlled tests.
 - Produce qualitative data.

Identify practical issues

For example, how to:

- Select users
- Find evaluators
- Select equipment
- Stay on budget
- Stay on schedule

Decide about ethical issues

- Develop an informed consent form
- Participants have a right to:
 - Know the goals of the study;
 - Know what will happen to the findings;
 - Privacy of personal information;
 - Leave when they wish;
 - Be treated politely.

Evaluate, interpret & present data

- Methods used influence how data is evaluated, interpreted and presented.
- The following need to be considered:
 - Reliability: can the study be replicated?
 - Validity: is it measuring what you expected?
 - Biases: is the process creating biases?
 - Scope: can the findings be generalized?
 - Ecological validity: is the environment influencing the findings? i.e. Hawthorn effect.

Key points

- Many issues to consider before conducting an evaluation study.
- These include: goals of the study; involvement or not of users; the methods to use; practical & ethical issues; how data will be collected, analyzed & presented.
- The DECIDE framework provides a useful checklist for planning an evaluation study.