

Discussions on Chapter 7

1. Consider the touchscreen public telephones which can be found in the airport. Suggest method(s) you would use to evaluate the usability of the touchscreen public telephone. Briefly explain why you would choose to use these method(s).

It is assumed that you have sufficient time and resources to use multiple evaluation methods.

Suggested solution:

1.

Two methods, namely, **questionnaires** (asking-user technique) and **experiment** (testing users' performance or user-testing technique) are suggested to use based on the following reasons:

Questionnaires:

- Since the subject group of using public telephone is **wide** (the major users will be tourists, although Hong Kong citizen may use public phones on some occasions), questionnaire is a good choice to reach different background of people.

- It is much **cheaper** than other asking-user methods such as interview
- It can be analysed easily and get valuable information particularly if the questions are properly designed
- It provides **fast** response time

Experiment:

- It can be used to study a wide range of different issues (e.g., time taken to make a call, number of errors in call making) of touchscreen telephones
- Quantitative measures can be obtained

For example, we can perform an experiment to compare it with conventional public telephones:

Possible (alternative) **hypothesis**:

“People prefer to use touchscreen telephones rather than conventional telephones.” The word “prefer” may correspond to making a call in a shorter time.

The **null hypothesis** is then: “People have no preference in using touchscreen telephones or conventional telephones.”

Possible variables:

Independent variables: touchscreen interface style, conventional interface style

Dependent variable: time taken to make a call

We can recruit some people to measure the time taken to make a call for both touchscreen and standard phones to test our hypothesis. If the average time for making a call using touchscreen telephone is shorter than that of conventional telephone, we say that the hypothesis is supported.

Questionnaires can be distributed to a large number of people and thus they provide evidence of wide general opinion. However, the design of questionnaires is critical and subjective results may be produced. On the other hand, experiment is a more objective technique and can produce quantitative measurements. As a result, it is suggested to use both questionnaires and experiment.