

important. Along with informing subjects about study requirements, it is necessary to notify subjects of possible benefits and risks of the intervention from participating in the trial. The following points must be made clear:

- purpose of the study
- expected duration of the subject's participation
- disclosure of alternative treatments (if any)
- how confidentiality will be protected
- identification that their participation is voluntary and that no penalty will result from their refusal to participate or their discontinuing participation once initiated

Researchers often have to make a choice between qualitative and quantitative methods. A quantitative research makes use of data that can be transformed into numbers for further analysis. The results produced can be generalized for proving the relevant theories. A qualitative approach depends less on numbers but more on judgment and expert opinion.

A research instrument is valid to the extent that it can measure what is purported to be measured. From the standpoint of the researcher, a valid instrument should be capable of producing data that is matched to the objective of the study. Any part of the measurement that relates to other unmatched features would be considered as validity error.

Reliability describes the overall consistency of a measure. If a measure produces similar results under consistent conditions, reliability is high. A test that is reliable is considered as a valid test. If a test is not reliable, it will not be perfectly valid. There are several different general issue of reliability estimates, including inter-rate reliability, test-retest reliability, inter-method reliability and internal consistency. Inter-rater reliability assesses the agreement between raters in their appraisals. Test-retest reliability assesses test scores consistency using measurements gathered from a single rater. Inter-method reliability assesses test

scores consistency when there are different measurement instruments in use. Internal consistency reliability assesses the consistency of results throughout all the items within a test.

## **Sample research report structure**

Below shows a sample generic research report structure:

### **I. TITLE AND GENERAL INFORMATION**

- Title of the Study.
- Author and contributor information.
- Dates and location of the study.

### **II. PURPOSE OF THE STUDY AND BACKGROUND**

- Purpose of the study. State the specific scientific objectives (aims) of the research and potential benefits.
- Background. Summarize the background, literature survey, rationale, nature and significance of the study. This should support the purpose of the study.

### **III. HYPOTHESIS**

- Create hypothesis. Null hypothesis means there is no relationship, no effect, nothing interesting, status quo.” Alternative hypothesis means there is a relationship, ability, etc. exists in the population.

### **IV. CHARACTERISTICS OF THE RESEARCH POPULATION**

- Number of subjects. State the total number of subjects in the study.
- Gender of Subjects. Describe the intended gender distribution of the