Chapter Two Lecture Notes

Psychology 1000

Scientific Method

1. Identify the problem and formulate hypothesis.
   - Hypothesis: tentative statement about a relation between two or more events.
   - Theory: collection of hypotheses, an organizing system, more general and elaborate. Good theories generate good/testable hypotheses.
   - Compare: Behaviour Theory and Freudian Theory. Behaviour theory is better because it is easily testable, it is not easy to test Freudian theory.

2. Design and execute the experiment.
   - Identify variables:
     Independent —> Manipulated
     Dependent —> Measured
     Independent —> causes —> Dependent
   - Control: without proper control, the experiment is confounded. The manipulation may have caused the change or it may have been another factor.

3. Determine the “truth”.
   - Do your results support the hypothesis? Are there any REAL differences?
   - Statistics.

4. Communicate the results.
   - Publish a report in journal.
   - Present a verbal description of results at a convention.
   - Discuss several related experiments in book/chapter.

Summary
   - Psychologists are interested in explaining the causes of behaviour.
   - To examine casual relations, the use the scientific method.
   - Form hypotheses
   - manipulate independent variables, measure dependent variables.