property.

1.3.5 Other Variable Classifications

- 1. Categorical, discrete, continuous.
- 2. Response, explanatory
- 3. Dependent, independent

1.4 Principles of Experimental Design

The features underpinning experimental design include:

- Randomisation
- Replication
- Controls
- Blocking

Randomisation implies the random allocation of treatments to subjects. The purpose of random allocation is to **avoid systematic bias**.

Replication enables the experimental error or variability to be measured.

A <u>control</u> treatment is usually included in an experimental design so that in the treatments can be compared to existing or none treatments.

<u>Blocking</u> is a type of design whereby 'numare' factors are allowed for in the experiment thus allowing the effects of the treatments to be measured more precisely. Blocking is used to increase precision

The overall objective when decigning a superiment is to measure the effect of a treatment as precisely as possible using the minimum resources (resources include time and number of experimental subjects).