

# [Perfect research design](https://assignbuster.com/perfect-research-design/)

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Central to this design is a random assignment. In a sense, this is the only design that can truly establish to a greater degree than other designs the cause-and-effect relationship between and among variables. This is done through statistical methodologies to measure if the changes observed are significant enough to warrant causality. An example of these statistical tools is ANOVA.   
The quasi-experiment, as opposed to the true experiment, does not employ random assignment. Instead, the subjects are chosen out of convenience to be part of a particular group. It can be said then that somehow the researcher may be measuring the effects of confounding variables rather than the target variable. Moreover, the reason for including the subjects in a particular group can in itself serve as a confounding variable. However, this design also has a means of comparing groups. It also uses statistical tools to account for a cause-and-effect relationship.   
The single-case design relies solely on an individual subject or a group of subjects to test and compare the effects of treatments. Central to this design is the baseline measure from which the researcher compares the posttest measurements. It is very important to gather measurements before and after the administration of the treatments. It would be difficult to establish any changes without the baseline measure. Sometimes the degree of the changes is also measured.   
There is no perfect research design. The most the researcher can do is to control as much as he/she can the confounding variables because this ensures the validity of results, both internal and external. The difficulty for the researcher increases as the degree of control increases for each research design.