

**PMEducation**

**DESIGN of EXPERIMENTS – more information**

Study of Quality Management can be a fully engaging endeavor. In Project Management, we want to know enough about Quality Management to select appropriate tools and to use them for the betterment of our projects.

* Design of Experiments (DOE) is a systematic method to determine the relationship between factors affecting a process and the output of that process. DOE is used in Quality Planning to help select critical characteristics, especially if using indirect measurement. Commonly used terms are:
1. Controllable input factors, or x factors. Those input parameters that can be modified in an experiment or process. For example, in cooking rice, these factors include the quantity and quality of the rice and the quantity of water used for boiling.
2. Uncontrollable input factors are those parameters that cannot be changed. In the rice-cooking example, this may be the temperature in the kitchen. These factors need to be recognized to understand how they may affect the response.
3. Responses, or output measures, are the elements of the process outcome that gage the desired effect. In the cooking example, the taste and texture of the rice are the responses.

Here is as site with even more information: <https://www.isixsigma.com/tools-templates/design-of-experiments-doe/design-experiments-%E2%90%93-primer/>